

**INDEPENDENCE MALL
DESIGN GUIDELINES**

**FINAL DRAFT
JULY 1998**

Chapter One

INTRODUCTION

Three interrelated design products -- a Master Plan, a detailed Site Plan, and these Design Guidelines -- have been created with the intent of making Independence Mall a great civic space, compatible with the scale, form and meaning of Independence Hall, its main focal point.

Together these three products establish and define the physical design concerns associated with the development of Independence Mall. These products will be utilized by all the various stakeholders who will build new or rehabilitate existing facilities on the Mall, and by the architects, landscape architects and others involved in designing those facilities. They also will be used by the National Park Service to structure the interaction with those stakeholders and designers, to ensure that the resultant designs support the broad physical and programmatic goals for the Mall and for the Park as a whole.

The placement, relationship, and relative size of the new facilities to be constructed on the Mall are depicted in the first of the three products, the Master Plan for the Mall's three blocks. A copy of this is bound into these Guidelines (see Figure #1). In addition, preliminary detailed Site Plans for the southernmost two blocks have been produced, available through the office of the Superintendent, Independence National Historical Park. In designing new facilities for the Mall these Design Guidelines must be used in conjunction with both the Master Plan and the detailed Site Plan in order to be fully understood.

Within these products, the Guidelines describe the intended physical design vocabulary of the Mall's buildings and open space, addressing such issues as materials, proportions, transparency and massing. And, as noted in the Guidelines, this vocabulary is intended to lead to these buildings and open space having a minimum life expectancy of fifty years. When it is necessary and appropriate to do so, these Guidelines provide rigid and specific direction about intended physical treatment that aligns with the Master Plan's specificity regarding the design and organization of open space and the placement and relationships of buildings. In other instances, however, such rigidity is absent, having been determined to be either unnecessary or not in the best interests of freeing the creativity necessary to produce what the Master Plan envisions.

This range of flexibility within these Guidelines, and of course their actual content, represent the Master Plan team's best professional judgment at this moment in the project about the physical design vocabulary through which the Master Plan should be realized. This judgment is meant to inform the stakeholders and their design teams in programming and designing their respective facilities.

Having said that, however, it is also recognized and indeed expected that these Guidelines may themselves be informed by the stakeholders and their respective design teams, who, through the further explorations inherent in their programming and design efforts, will enhance and enrich the physical design vocabulary for constructing the best and most appropriate physical expression of the Mall Master Plan. The Guidelines are thus in a format that can accommodate the future revisions that might result from such evolving sophistication about the Mall's design issues as the project progresses. It is reasonable to expect that the Guidelines will be revised and reissued as NPS determines necessary to reflect such evolving collective design insight.

The National Park Service will utilize these Guidelines, with the associated Master Plan and the detailed Site Plans, to guide and direct its continuing collaboration with the stakeholders who will build on the Mall. The primary focus of these Guidelines is the projects described in Chapter Three that in their entirety will result in the implementation of the Master Plan of which these Guidelines are a part. They therefore have great import in the short term. In the medium term, the legal agreements between the National Park Service and the operators of the various facilities will address in detail the mechanisms for physical or operational alteration of those facilities in the future. In the long term, the extent to which the Guidelines govern changes to the Mall or its buildings in ensuing decades will be determined by NPS and whatever stakeholders might be involved in such future changes, utilizing incorporating public comment as appropriate to the particular project. It can be anticipated that the Guidelines will offer those parties considerable insight into the design intent of the Master Plan.

The comprehensiveness of these Guidelines -- the result of the thoroughness of the design team that produced them and the input it solicited and obtained throughout the project from the respective stakeholders and the National Park Service -- leaves little reason to expect many requests to substantially modify any of their provisions. Should such a request arise, the same collaboration that has existed throughout the project can reasonably be expected to lead to a mutually acceptable modification. NPS, because of its ultimate legal responsibility for administering Independence National Historical Park, will serve as the arbiter of any such requests, and will make the final determinations.

In conclusion, these Guidelines recognize the will of all to succeed, and provide the common design language to do so as well as the framework for enriching that language. They recognize and respond to the obligation of NPS to ensure that the overall physical character of the Mall is consistently excellent, and that it is supportive of NPS goals and responsibilities, as they have been enumerated throughout the long and public planning process through which the Master Plan has been developed. They equally recognize and respond to the need of each stakeholder to efficiently and proudly design and construct facilities satisfying their ambitious, extraordinary, and interdependent programmatic and design goals.

National Park Service General Management Plan Process

In April 1997, following three years of research, public participation and planning, the National Park Service adopted a General Management Plan (GMP) for Independence National Historical Park. The Park encompasses both the Cultural Zone, which includes Independence Square and the two blocks east of it, and Independence Mall which includes the three blocks north of Independence Hall. Throughout this document, the three blocks of the Mall will be referred to as Block One (between Chestnut and Market Streets), Block Two (between Market and Arch Streets) and Block Three (between Arch and Race Streets).

The General Management Plan is designed to be a long-term guide to the management of Independence National Historical Park and provides a vision and management objectives for the park. The GMP reinforces the park's identity and basic mission of preservation and interpretation of the resources and stories that symbolize the establishment of a new nation.

The Master Plan Team

Following the adoption of the GMP, the National Park Service selected a professional planning team, led by the Olin Partnership (landscape architecture and urban design) to assist with the

development of a Master Plan and Design Guidelines for Independence Mall, and detailed site plans for Blocks One and Two. The team included Bohlin Cywinski Jackson (architecture), Kise Straw and Kolodner (urban planning), Urban Engineers (engineering, transportation management), International Consultants, Inc. (cost estimating, project management), History Now (interpretive planning), John Milner Architects, Inc. (historic preservation), and Karin Bacon Events, Inc. (special events planning).

The client team for this contract was a core group of National Park Service personnel from the Regional Director's Office, the Philadelphia Support Office, Independence National Historical Park and the Denver Service Center. The core team was supplemented when necessary with NPS subject matter experts such as engineers, archaeologists, historians and compliance specialists.

The Stakeholders

Several stakeholders are committed to help fund the design and construction of various buildings within the Mall, based upon the Master Plan and Design Guidelines. The stakeholders include the Pew Charitable Trusts, the Annenberg Foundation, the City of Philadelphia, the Commonwealth of Pennsylvania, the Knight Foundation, the Connelly Foundation, Eastern National Parks and Monuments Association, the private, non-profit National Constitution Center, and the Philadelphia Parking Authority.

Several other Philadelphia City agencies also have an interest in the park design: the Planning Commission, the Streets Department, the Water Department, the Department of Licenses and Inspections, the Mayor's Office for Policy and Planning, and the Transportation Department. The Philadelphia Electric Company (PECO) and Southeastern Pennsylvania Transportation Authority (SEPTA) will also be involved.

The Master Plan Design Process

The design process began with research into the site and the collection of information about the buildings and associated programs mandated by the GMP. Key issues and site specific opportunities and constraints were identified. Conceptual design studies were undertaken to understand the relationships between building masses, open spaces and program requirements. The Stakeholders and the other interested agencies were consulted throughout the planning process, and their input was incorporated as the design evolved into the final Master Plan.

The Master Plan sets patterns of open space and buildings, and shows the way in which buildings and vegetation define the Mall's open space, inflect its circulation patterns, and create or enhance views and vistas. Buildings are sited and their overall maximum envelope established. The Master Plan does not establish minimum sizes for any of its built components, in recognition of the fact that their uses are those presented and described in the approved General Management Plan. Rather than establishing minimum sizes, the GMP and the Master Plan in these Guidelines sets forth urban design principles which the design must address. It is recognized that programs will evolve, most likely towards a size smaller than the maximum envelope illustrated in the Plan, and that it will be the responsibility of the designers of each facility, working with these Guidelines, to satisfy the urban design goals with built but not necessarily enclosed or specifically programmed fabric. Such flexibility is an inherent goal of the Plan, in response to the evolving sense of detail about each facility.

The locations of paths and walkways are indicated and the overall system of pedestrian and vehicular circulation to, within, and from the Mall is defined. Other issues of the GMP such as

bus loading and drop-off, the location of the visitor center café, and potential locations for interpretive opportunities within the Mall were also addressed.

Detailed schematic site plans for Blocks One and Two were prepared including grading, materials, layout and planting.

With regard to contextual issues around and beyond the perimeter of the Mall, outside of the jurisdiction of the National Park Service, the Master Plan included the development of a set of recommendations. These are presented in Appendix B, "Contextual information." As noted in that Appendix Section, stakeholders designing facilities on the Mall should assume that for these contextual issues the status quo will continue, unless specifically noted otherwise in these guidelines.

Design Guidelines

The Design Guidelines, in conjunction with the Master Plan, are intended to direct the future development of the landscape and the architecture on Independence Mall. The guidelines summarize the principles which informed the design process and describe the features of the Master Plan. The guidelines set standards for future development relating to environmental sustainability, architecture, landscape design, public improvements, interpretation, special events, security, and engineering.

The landscape guidelines are intended to describe in some detail the landscape elements and character envisioned for the outdoor areas of the Mall as shown in the Master Plan. They clarify the design intent of the Master Plan and provide parameters for future development phases of the project. They do not include specific quantities, locations and specifications for construction.

Unlike the landscape elements of the Mall, the proposed buildings have not yet been designed. The architectural guidelines, in conjunction with the Master Plan drawings, are meant to establish the building sites, confirm the legitimacy of the planned massing of the buildings, and establish a context within which each building will be built. The representations of proposed buildings are not intended to inhibit the creative freedom of the architects ultimately selected to design the buildings. Essential to the success of the Mall, however, is a group of harmonious buildings united by material, scale, and massing, by their contribution to the creation of great public space, and by their collective and interdependent enhancement of the visitor experience.

DESIGN PRINCIPLES FOR BUILDINGS AND LANDSCAPE

Design Intent

The General Management Plan identified four broad goals for the future of the Mall:

- Establish the park as a setting that is appropriate in size and use for Independence Hall.
- Maximize visitor choice.
- Reinforce the implicit connection between the park's urban setting and its mission and significance.
- Preserve, and define the parameters of, maximum flexibility for future development of the park.

The twelve principles (A through L) listed in italics below were developed by the National Park Service as part of the General Management Plan; additional principles were created by the Master Plan Team. Following each principle are statements created in collaboration with the NPS which describe how the Master Plan achieves each principle.

Principles of the General Management Plan:

A. Scale of Independence Hall

Principle: Organize buildings, open space and circulation so as to maximize understanding of both the scale and the significance of Independence Hall.

1. Reduce the scale of the existing Mall “superblocks” by referencing the historic street pattern and relating to the scale of Independence Hall.
2. Design buildings which respect and respond to the scale of Independence Hall.
3. Provide opportunities for the fine detail of Independence Hall to be viewed closely and obliquely.

B. Views and Vistas

Principle: Allow for a variety of long and short vistas and views of Independence Hall and other features on and adjacent to the Mall, consistent with the modest scale of those features.

1. Preserve and enhance the open view to Independence Hall from the public space within the National Constitution Center, as well as the open space at the center of and south of it on Block Three, and from designated areas of each building on the Mall.
2. Emphasize the view of Independence Hall from Sixth and Chestnut Streets which excludes a backdrop of modern buildings.
3. Provide changing viewpoints and vistas as one moves north or southward within the Mall.

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4. Provide visual connections from the Mall to the east and west into and from the adjacent neighborhoods.

C. The Axis

Principle: Make the axis gentle and commensurate with the size of Independence Hall. Utilize it as an organizing device for the placement of buildings and spaces.

1. Provide a north-south view within the Mall without emphasizing that axis with a symmetrical design.
2. Create a sense of outdoor rooms, a choice of paths and a variety of views.

D. Asymmetry

Principle: Organize buildings and circulation so as to respond to the differing characters of the east and west edges of the Mall.

1. Provide a built edge along the west side of the Mall which serves to reduce the massive scale of existing buildings on Sixth Street.
2. Create a softer, more landscaped edge along Fifth Street which responds to the less massive scale of the buildings on the east side of that street.
3. Make both sides of the Mall visually open to the sidewalk and invite entry from many locations in order to enliven both Fifth and Sixth Streets.

E. The Grid

Principle: Position buildings and open space in deference to what is suggested by the city's grid plan.

1. Integrate the Mall with the city's urban fabric by reinforcing the grid plan through the use of historic alleyways. The alleyways will be constructed so as to read as streets, utilizing the palette of materials described in Chapter Six. This palette should be part of a hierarchy of paving materials that would visually differentiate the alleyways from other pedestrian circulation paths within the Mall, and help establish their primacy in the overall design and circulation concept.
2. Establish visual and physical links to nearby city attractions such as Christ Church, the National Museum of American Jewish History, the Atwater Kent Museum, Chinatown, etc.
3. Develop a built edge along Sixth Street and at major intersections throughout the Mall.

F. Sequence

Principle: Organize buildings and open space so as to enable visitors to circulate among them at their own pace and in pursuit of their own interests.

1. Place the Gateway Visitor Center in a central location adjacent to the parking garage so that visitors are encouraged to begin at the center of the Mall at a place of orientation where they can find out about the variety of options available.
2. Provide a wide variety of paths, experiences and interpretive sites for the visitor to explore. Ensure that interpretive experiences are non-linear so that they can be enjoyed in any order.

G. Outdoor Space

Principle: Recognize the open space of the Mall as the key element contributing to a demonstration of the values and significance for which the park stands.

1. Unify the entire three blocks of the Mall through the design of the open space.
2. Create a democratic Mall in which each building and each gathering area has an important location, with no single building dominating the space. Ensure that the resulting Mall is an open space with buildings, rather than a collection of buildings with leftover green space.
3. Ensure that all parts of the Mall are accessible to all visitors.
4. Feature a diversity of plant materials.

H. The Pedestrian Environment

Principle: Enhance the Mall's pedestrian environment by reconnecting it with the city around and beyond it.

1. Provide views into the Mall from every corner and from a variety of locations on each street.
2. Increase access into the Mall from the sidewalks along Fifth and Sixth Streets.
3. Encourage diagonal circulation across the Mall, and bring pedestrians to the corners of each block for safer street crossings.
4. Improve pedestrian access to the Mall from the parking garage and the subway.
5. Make the interior of the Mall easily understandable to visitors so that they can readily locate the sites they wish to visit.
6. Provide information about nearby city attractions. Where possible, provide visual and physical links to these attractions.
7. Design walkways so that large groups can move through without blocking paths or obstructing other pedestrians.

I. Vehicles

Principle: Integrate a new, logical vehicular system into the Mall design recognizing that concentrating vehicular arrival concentrates the people and thereby enhances the urban density of the Mall.

1. Reconfigure the entrance to the parking garage so that it can be more easily identified by visitors.
2. Improve signage around the Mall so that visitors can easily find the Mall and the parking garage, coordinating with existing City signage systems.
3. Minimize non-moving traffic around the perimeter of the Mall. (Towards this end, the Master Plan has suggestions such as preventing charter buses from parking on any of the blocks at the perimeter or traversing the Mall; prohibiting idling or parked vehicles from blocking vistas and impeding movement; and removing all currently used loading/standing zones adjacent to Independence Hall and the Bell Pavilion. See Appendix B.)
4. Encourage multi-modal access to Mall through enhancement of subway access, etc.

J. Urban Linkages

Principle: Place buildings and associated design elements along Market and Arch Streets so as to help reestablish the physical continuity of the street.

1. New structures along Sixth Street must physically define the corners of their respective blocks. The east/west linkages across the Mall established from these buildings must be reinforced by the design and placement of the "corner markers" along Fifth Street.
2. Create structures at the major intersections which physically complement and strengthen the urban linkages at these locations and which, through their common design language, cumulatively signal to pedestrians and vehicle passengers that they have entered the park, and that the park is a special precinct within the city.
3. The "gateway element" must physically define the corner of Sixth and Race Streets.
4. Reinforce the east-west connections to the surrounding historic district by reintroducing the historic alleyways.
5. Create a built edge along Sixth Street which will reinforce the continuity of the street.
6. Wherever possible, remove visual and physical barriers between the sidewalk and the Mall so that the Mall is not separated from the city around it.

K. Proximity

Principle: Place the visitor center so that it is close to and has a direct visual relationship with Independence Hall and the Liberty Bell.

1. Place the Gateway Visitor Center so that visitors to it can see both Independence Hall and the Liberty Bell Pavilion while not obstructing the view of those structures from other locations within the Mall.
2. Create a readily identifiable visitor center which attracts visitors without overpowering the historic structures in the Mall.
3. Locate the Gateway Visitor Center so that it is easily accessible to the parking garage, subway station, and the Market Street pedestrian axis from City Hall, the Pennsylvania Convention Center and Penn's Landing.

L. Height

Principle: The height of buildings within the Mall may increase the farther north they are from Independence Hall.

1. Limit the height of buildings on Block One so that they are no higher than, and preferably lower than, Independence Hall. (Governing height components of the Hall include the eave and ridge lines, described in Chapter Five.)
2. Limit building heights on the Block Two to the height of Independence Hall.
3. Allow buildings on Block Three to be higher than the Hall, within a maximum height, in order to anchor the north end of the Mall.

Additional Principles Created by Master Plan Team:

M. Relationship to the Eastern Sector of Independence National Historical Park

Principle: Design the Mall so that it has a relationship with the area of Independence National Historical Park which is located east of Independence Square.

1. Create design continuity between the new buildings on the Mall and the historic buildings in the eastern part of the park through the use of compatible materials, scale, and siting and massing of buildings.

N. Visitor Experience and Interpretive Opportunities

Principle: Create opportunities and spaces where people can interact with the historic stories and enjoy the original buildings of the park.

1. Offer interpretations of multiple themes linked to Independence Hall, the Liberty Bell, the city of Philadelphia, and the historic events and principles with which they are associated.
2. Embed interpretive elements, discovery opportunities, performance spaces, and markers throughout the Mall along primary pathways, at the corners of blocks, at or on new buildings, and in the landscaped areas.
3. Incorporate wayfinding elements that orient visitors and call attention to historic sites throughout the Mall and in adjacent neighborhoods.
4. Create interpretive opportunities that emphasize touch and hearing as well as vision, with special attention to the needs of disabled visitors, senior citizens and young children.
5. Site interpretive media so that it does not intrude on historic vistas or appreciation of the landscape. Provide shaded and/or sheltered areas where visitors can encounter interpreters or costumed actors scattered throughout the Mall.
6. Incorporate elements which identify the Mall as part of the National Park System.

O. Sustainable Design

Principle: Emphasize environmental sensitivity in planning, design, construction, operation and maintenance throughout the Mall; use non toxic materials, resource conservation, recycling; and integrate visitors with natural and cultural settings.

1. Design buildings incorporating passive solar, natural ventilation, daylighting, and energy efficiency.
2. Provide architectural and vegetative shade for buildings, outdoor pathways and seating areas.
3. Use non-reflective, non-heat retentive paving material.
4. Use predominantly native plants which require minimal water and care.
5. Interpret selected aspects of sustainable design.
6. Use materials with longer life-cycle and least environmental cost whenever possible.
7. Use graffiti-resistant and easily maintainable material and surfaces.
8. Design paths through and along landscaped areas of the mall so as to reduce "shortcutting."

P. Security

Principle: Provide a feeling of safety and security throughout the Mall which encourages use.

1. Provide visibility into and through the Mall, allowing for easy observation.
2. Encourage pedestrians to cross streets at intersections.
3. Increase lighting in and around the Mall.
4. Increase circulation through, and activity in, the Mall both during the day and into the evening.
5. Design walkway edges, tree wells, sprinkler heads, etc. to minimize trip-hazards.
6. Design spaces which discourage undesirable or illegal activities.

Q. Accessibility

Principle: Make all parts of the Mall and its buildings accessible to all visitors.

1. Make all parts of the Mall appealing to people of all ages and abilities, with features attractive to children and accessible to persons with all types of impairments.
2. Wherever possible, ensure that handicapped access and pedestrian access is the same (not separated). Use ramps rather than stairs if possible when level changes are necessary.
3. Make provisions for hearing and sight-impaired visitors.

R. Site Archaeology

Principle: Ensure that archaeological features currently beneath the Mall are documented, preserved, and, to the extent possible, incorporated into the visitor experience.

1. Archaeological discoveries, where feasible and appropriate, should be retained *in situ* and considered as unique opportunities for interpretive elements.
2. During construction, archaeological evidence and features must be documented and, if possible, preserved.
3. Archaeological consultants should work closely with construction crews to prevent the destruction of possible historic artifacts.

MASTER PLAN DESCRIPTION

Design Intent

The primary intent of the Master Plan for Independence Mall is to transform it into a cohesive park which is integrated into the surrounding urban fabric. The program for the three blocks north of Independence Hall calls for the construction of several large new buildings; the Master Plan creates a unified park with a series of buildings rather than allowing it to become buildings surrounded by leftover space. In response to the scale of Independence Hall, the new Mall will be modest, with deferential buildings appropriately scaled so that they preserve the prominence of the Hall. The new facilities which line Sixth Street will widen towards the east as they move from south to north, ensuring views from each one to the Hall. The Mall will be unified by landscape elements including a spacious central lawn and a continuous pedestrian walk and arborway within the Mall adjacent to the buildings. The wooded areas on the eastern side of the Mall will be elevated slightly above the central lawn and will contain gardens, a café and seating areas overlooking the Mall and the Hall. Visitors can enter the Mall from any point and immediately be oriented to the Hall, Bell, Visitor Center, Independence Park Institute and National Constitution Center. The plan welcomes diversity and allows conflicting activities to coexist. The new Independence Mall will be safe, open, accessible and green.

Mall-wide Elements

(See Master Plan, Figure #2)

1. Alleyways:

The reintroduction of the east-west streets which relate to historic or existing street patterns will reduce the scale of the Mall's "superblocks." The alleyways will offer visual connections to the surrounding neighborhoods and landmarks, museums and attractions, providing new entryways into the park and breezeways through the buildings. The alleyways will be constructed so as to read as streets, utilizing the palette of materials described in Chapter Six. This palette should be part of a hierarchy of paving materials that visually differentiates the alleyways from other pedestrian circulation paths within the mall, and help establish their primacy in the overall design and circulation concept.

While these will primarily be walkways and not open to public vehicular traffic, they will be constructed so that park and service vehicles can use them for access to the Mall.

Where the alleyways traverse the top of the garage, design of any vehicular access will be constrained by the garage's structural capacity, which may necessitate limitations to vehicular access in this location.

Portions of certain alleyways, such as the ones through the Liberty Bell Pavilion and the Gateway Visitor Center, may be fully enclosed with glass so that the buildings are uninterrupted. In such circumstances a reference to alleyway paving and a visual opening continuing through the structure is encouraged. Other

alleyways will be large enough to maximize views and allow pedestrian access into the Mall from the street.

2. Arborway:

The arborway is designed to develop a strong armature for organizing the buildings and pedestrian circulation while creating a transition between the landscape of the Mall and the buildings. It is used to emphasize the primary north-south pedestrian circulation through the Mall, act as another means of "connecting" the three blocks, and provide passive solar shading of the adjacent buildings. The intent of the arborway is to provide a visually unifying element for the Mall which will tie together the individual development sites with a consistent rhythm of structural members enriched by plantings. The arborway will serve as the maximum eastern boundary of the "build-to" line for the buildings along Sixth Street. It shall be considered a construction to which buildings shall relate in terms of scale, rhythm and proportion, through careful composition of the park facade of the buildings. The arborway should encourage "window shopping" along each of the buildings adjacent to the arborway.

3. Corner Markers:

The corner markers are small structures designed to unify the Mall through a consistent vocabulary of design and materials which will be readily identifiable to both vehicular and pedestrian traffic approaching the Mall. The repetition of familiar forms and materials in these markers will indicate the boundaries and entrances of the Mall. There are several locations in the Mall where the corner markers are part of larger buildings. The corners of these buildings shall be designed to be similar to the other corner markers throughout the Mall. There shall be a similarity of materials, proportions, and constructed elements. In these cases the use of the buildings themselves as apart of the mall-wide corner marker treatment will not impose any programmatic requirements on those buildings, nor introduce any materials or proportions not otherwise addressed elsewhere in these guidelines.

Some of these corner markers may be required to house a number of the incoming Mall utility services (services exclusive of the Stakeholder buildings). The chart below indicates which corner markers could contain these Mall utilities. Space must be allocated to allow for these functions. These services may include, but not be limited to, the following: water, irrigation, pathway and general lighting, general electrical including meters, drinking fountains, telephones/telecommunications, first aid, security.

The location, size and scale of the Free Quaker Meeting House has been used as inspiration for the creation of constructed elements which would be placed at most of the corners of each of the three blocks. The Liberty Bell Chamber and the Gateway element would not conform to the other corner markers, but would be distinctive structures. The location and function is as follows and as indicated on the Master Plan drawings.

a. Block One:

| <u>Location</u> | <u>Function</u> | <u>Mall Utilities</u> |
|------------------|-----------------------------|-----------------------|
| Northeast Corner | Subway access | Yes |
| Northwest Corner | Liberty Bell queuing arcade | No |
| Southeast Corner | Public Restrooms | Yes |
| Southwest Corner | Liberty Bell Chamber | No |

b. Block Two:

| <u>Location</u> | <u>Function</u> | <u>Mall Utilities</u> |
|------------------|--|-----------------------|
| Northeast Corner | Free Quaker Meeting House | No |
| Northwest Corner | PECO substation access and part of IPI | No |
| Southeast Corner | Subway access | Yes |
| Southwest Corner | Part of Gateway Visitor Center | No |

c. Block Three:

| <u>Location</u> | <u>Function</u> | <u>Mall Utilities</u> |
|------------------|---|-----------------------|
| Northeast Corner | Bus ramp and NPS maintenance building | Yes |
| Northwest Corner | Gateway Element | No |
| Southeast Corner | Interpretive area - Pedestrian exit from underground bus terminal | Yes |
| Southwest Corner | Part of National Constitution Center | No |

4. Central Lawn:

The Central Lawn is designed to ensure the open, northern and southern views in the Mall without requiring strict symmetry. The Lawn also allows for a wide variety of outdoor activities, including festivals and events requiring seating, stages and/or tents. Portions of the lawn may have reinforcing to accommodate vehicles and crowds.

Design of the lawn and accommodation of its uses will be constrained by the garage's structural capacity, which may necessitate certain limitations in this location.

5. Paths:



A network of paths will allow visitors to enter the Mall from a variety of locations and to travel through the Mall by various routes. Walkways will be designed to encourage leisurely passage, but will be safe and easy to monitor after dark. All paths will be constructed to support intermittent vehicular traffic. Path widths should allow for mechanized sweeping and snow removal. Walking surfaces will be non-skid, slip and trip resistant, easily repairable and maintainable. While ensuring that desired vistas are unimpeded, walkways will be shaded as much as possible. Design of the paths over the garage will be constrained by its structural capacity, which may necessitate certain limitations in this location.

- The Primary North-South path is adjacent to the buildings on the west side of the central lawn, shaded by the Arborway. Spaces are provided where groups can gather, or interpretive activities can take place.
- The Curved path travels north-south along the edge of the Central Lawn and the wooded areas of the Mall. It is a more meandering route which provides access to a series of outdoor spaces at the Cafe, the Free Quaker Meeting House and the various gardens and seating areas on the east side of the Mall.
- The Diagonal Crosswalks connect the east and west sides of the Mall across the central lawn from northwest to southeast. These paths will relate strongly to park and building entrances, and their specific locations, their layout, and their overall number may change as the new buildings are designed. These paths are designed to direct pedestrians to street intersections, crosswalks, doorways, entries, and alleyway access routes. They should be designed so as to be visual subsidiaries of the alleyways in the Mall's overall hierarchy of pedestrian circulation. This palette should be part of a larger hierarchy of paving materials that would visually differentiate the alleyways from other pedestrian circulation paths within the mall, and help establish their primacy in the overall design and circulation concept.

6. Seating:

Benches and seatwalls will be provided along pathways, within the Arborway, along the Curved Path and within the wooded areas throughout the Mall, providing a variety of locations and environments for visitors to rest, eat, and enjoy the views.

- Low seatwalls may be considered at the north and south ends of each block which will help to direct pedestrians to the corners of each block, thereby reducing jaywalking. They could also help to prevent unauthorized vehicular access into the Mall. They will be designed to discourage use by skateboarders and overnight sleepers.
- Moveable tables and chairs will be provided on the terrace at the outdoor café.

7. Street Modifications:

Narrowing of the City streets that surround and trisect the Mall is under consideration. See Appendix B, "Contextual Information," for additional detail.

Block One

(See Figure #3)

1. Liberty Bell Pavilion:

The Liberty Bell Pavilion will be clearly identifiable as the place to visit the Liberty Bell. It is a tripartite structure, three distinct buildings, spanning the length of the block, in a fixed location (see Building Placement diagram, Figure #12). The northernmost part of the pavilion will be a covered arcade where groups can gather before entering the Interpretive Area and the Bell Chamber. These latter two sections, which are attached and fully enclosed, will together be able to accommodate 400 people at a time and will have one entrance and multiple exits. A visit to the Bell will proceed from north to south:

- The Queuing Arcade (Northwest Corner Marker)
This area will be a covered, but open structure in the spirit of the Head Houses which once stood on Market Street. This area will provide some protection from the elements to groups waiting to see the Bell and will provide graphic exhibits about the Bell while waiting. Some seating will be provided.
- The Interpretive Area
The only entrances to the two-part Bell Pavilion will be in this area so that all visitors will have an opportunity to learn about the Bell before proceeding to the Bell Chamber. Within this area, there will be space for people to view interpretive exhibits and to hear discussions of the history and significance of the Bell. Separate areas will be provided for foreign language interpretation.
- The Bell Chamber (includes Southwest Corner Marker)
This Chamber will have a direct, oblique view of Independence Hall with the tower seen against the sky without a backdrop of twentieth century buildings. This structure will respond to the very specific sight line from the Bell to the spire of Independence Hall. (See Views and Viewshed Diagram, Figure #15.) It will be designed as a space in which up to 100 visitors can proceed in quiet contemplation past the Bell before exiting the building. The Bell will be placed in a position which does not preclude visitors from touching it. Moreover, the structure will allow visitors to see and learn about the Bell from the outside, even at night. The design will allow the Bell to be photographed from both inside and outside the Chamber. The Bell will also be visible from the front of Independence Hall and, if possible, from the second floor Gallery of the Hall. A raised earth-formed seating area around the south and west edges of the Bell Chamber will provide an area for quiet activities and will also serve as protection from unauthorized vehicular access. The building exit shall direct visitors to the crosswalk at Sixth and Chestnut Streets where they can continue their trip to Independence Hall. The view of Independence Hall from the Liberty Bell Pavilion is illustrated in Figure #4. The view of Block One from the Arborway is depicted in Figure #5.

2. First Amendment Rights Area

This will be a clearly delineated area with a direct view of Independence Hall and the Bell Chamber where groups of up to 250 people can exercise their First Amendment rights without interfering with daily visitation to the Mall. The area will consist of a 2500 square foot stone paved surface and may have the text of the First Amendment engraved in the paving stones. A location for a symbolic

"soapbox" may be provided. Electrical power will be available to this area with a separate meter; park staff will have the ability to turn the power on and off from a remote location.

3. High Security and Liberty Medal Ceremony Special Events Area

The southern end of Block One will accommodate seating for large, high security special events occurring in front of Independence Hall. This lawn area, which extends nearly to the first alleyway, will allow seating for up to 2000 spectators (24,000 sf). The area will be designed to support the vehicles necessary for the set-up of these events, and there will be convenient electric power sources for lights, sound systems and media equipment.

4. Passive Seating Areas

There will be several seating areas along the east side of the Mall where visitors, residents or office workers may rest or bring their lunch. These areas will be separate from active interpretive sites and the activity of daily visitation, but will have interpretive elements integrated into the landscape design.

5. Public Restrooms (Southeast Corner Marker)

The existing restrooms on the northeast and northwest corners of Block One will be demolished to allow better sight lines from the northern corners of the block to Independence Hall. New restrooms will be constructed on the southeast corner. The restrooms will be convenient for visitors to Independence Hall and Independence Square as well as people in Block One of the Mall. Facilities for both men and women will be accommodated in one building. The building will be designed to be readily identifiable, but will not be obvious to visitors in the Liberty Bell Chamber. Access to the restrooms will be from inside the Mall only. The design of the restrooms should allow sections to be closed for cleaning or in slow seasons while the other sections remain in use.

6. Subway Access (Northeast Corner Marker)

The new subway entrances are intended to serve as one of the Mall's Fifth Street corner markers, as described above. See Appendix for additional information.

7. Parade-watching Area

Wide pavement along Chestnut and Market Streets will accommodate grandstands for parades and other special events which occur along those streets. The pavement will be reinforced to support vehicles and other equipment necessary to service such events.

Block Two

(See figure #7)

1. Gateway Visitor Center (includes Southwest Corner Marker)

The GVC will serve to orient visitors to the park, city and region. The GVC will be accessible from the Mall and from Sixth Street and/or Sixth and Market Streets, providing visitors with access to the same internal greeting/orientation space. The GVC will have excellent unobstructed views of Independence Hall. (The view from the second floor of the GVC is depicted in Figure #8.)

Several gathering spaces will be created outside the GVC along the primary north-south path for interpretive activities and tour staging. The size and location of these gathering spaces will be developed based on the specific program requirements as defined by the GVC and IPI. Bike racks may be provided near the entrances.

The GVC will have a set of restrooms which can be accessed from the exterior of the building for use during special outdoor events when the GVC is closed. There will also be an adequately sized area, accessible from outdoors, for first aid, lost and found, staff breaks, or command center during special events.

The GVC design may need to incorporate utility chases or other service pathways accommodating the garage's ventilation system. On this and other matters, close coordination between the GVC design team and the Philadelphia Parking Authority regarding design and functional issues is of critical importance.

2. Independence Park Institute (includes Northwest Corner Marker)

This will be an educational facility adjacent to the Gateway Visitor Center, which offers a full palette of educational and cultural heritage programs. The feasibility of shared facilities between the GVC and the IPI, and their extent, will require closer investigation during the design phase to the extent allowed by the funding and schedule of both projects. Where appropriate, direct connections with the GVC are encouraged, to facilitate sharing of spaces. Within the IPI will be a dedicated area from which an excellent and unobstructed view of Independence Hall is possible. One or more large gathering spaces will be created outside the IPI along the primary north-south path for interpretive activities. Outdoor classes can be accommodated in a quiet, limited access seating area along the eastern edge of the Mall. (See item 5 below.)

Within the IPI structure will be an entry ramp to the underground parking garage and a separate entrance and space for ventilation structures for the underground PECO substation. Access to the PECO substation will be maintained.

3. Underground Parking Garage

The Master Plan incorporates and accommodates the continued presence of the existing underground garage in Block 2, including its projection above the adjacent sidewalks and Mall surfaces. The presence of the garage is a "given" in the project, as is the continued use of its roof for public open space in the midst of a national park. The Plan incorporates some modifications to the garage, such as the treatment of the surface of its roof, and circulation of cars and people to it.

It is the expectation of the Philadelphia Parking Authority that the implementation of the Master Plan will not necessitate reinforcement of the garage's existing structural capacity. Design of any component affecting the structure of the parking garage must be reviewed and approved by the Philadelphia Parking Authority prior to implementation.

The existing garage will be repaired and brought up to code with respect to exiting, emergency access, handicapped accessibility, and ventilation as planned by the Philadelphia Parking Authority. These renovations include the following proposed improvements: a new entrance ramp will be created from Sixth Street which will be an extension of the existing helix ramp within the garage; the entrance and exit ramps on Fifth Street will be retained. In addition, the entrances to the garage will

be accented and new signage provided. The design will incorporate necessary and appropriate warning features for pedestrians and drivers at areas where their respective circulation systems intersect (e.g., where sidewalks cross entry and exit ramps). The renovation of the garage will occur in conjunction with the construction of the GVC. Close coordination between the GVC design team and the Philadelphia Parking Authority regarding design and functional issues is of critical importance.

- An Atrium exit will be built on the west side of the garage which will open into the Gateway Visitor Center. Skylights, natural and artificial lighting, plants and interpretive displays will make this an attractive area which provides natural light and, through it, orientation to all levels of the garage, and which thereby encourages and welcomes visitors to go directly into the Gateway Visitor Center. Because the Atrium will be an integral part of the GVC, it should be designed by the same architect who designs the Visitor Center. This design must be coordinated with and approved by the Philadelphia Parking Authority.
- An exit directly into the Mall may be built on the southwest outside edge of the garage where pedestrians can exit onto the primary north-south path of the Mall. This can be a primary exit from the garage whenever the GVC is closed (the Atrium will be another such exit.)
- In addition to the above, the Parking Authority, in order to comply with ADA standards, intends to extend some type of vertical transportation system to street and Mall level, on the Fifth Street side of the garage, as part of its overall renovation of the facility. This element must be incorporated into and coordinated with the overall surface scheme in this area of the Mall.

4. Outdoor Café

The outdoor café will consist of no more than two kiosks. The terrace around the kiosk(s) will contain moveable tables and chairs which can seat a minimum of 100 people. The terrace will be slightly above and overlooking the central lawn of the Mall, and will contain tall shade trees ensuring a comfortable environment while allowing selective views of Independence Hall and the Park. The café will be designed for seasonal use and have adequate lighting for evening use. A view of the café is depicted in Figure #8.

5. Amphitheater

An informal amphitheater will be built into the topography with stone seat walls and lawn terraces oriented towards Independence Hall. These seatwalls will be designed to discourage skateboard use. A rough paving strip adjacent to the wall, or other methods to be devised, will be implemented to assist in the prevention of skateboard use. Electrical power will be available to this area. When not in use for interpretive activities, the area can be used by visitors as a picnic area.

6. Free Quaker Meeting House and Garden (Northeast Corner Marker)

The historic Meeting House will have improved access and identification from the interior of the Mall. Paths will clearly direct visitors to the entrance on Fifth Street. There will be no entrance on the west side of the building and the door on this side will have no external hardware. A new garden will be constructed south of the Meeting House affording visitors a view of the attractive south gable of the building. The garden will have low walls with wrought iron fencing which allow visitors to see into the space. The building, its grounds and its programs will be integrated into the Mall through interpretation, signs, and marked pathways.



7. Special Event Area

The lawn on Block Two will accommodate groups of 5000 or more for special events such as the Welcome America event. This area will be designed to accommodate loading/unloading equipment such as tents and band equipment. Accommodation will be made for staking tents. There will be electric power available for large sound systems, catering and media as well as many easily accessible outlets carrying standard household current. Electrical cut-off switches will be easily accessible for Park staff but out of sight of the individuals using the power.

8. Passive Seating Area

There will be an additional seating area along the east side of the Mall where visitors, residents or office workers may rest or bring their lunch. This area will be separate from active interpretive sites and the activity of daily visitation but will have interpretive elements integrated into the landscape design.

9. Subway Access (Southeast Corner Marker)

The new subway entrances are intended to serve as one of the Mall's Fifth Street corner markers, as described above. See Appendix for additional information.

10. Parade-watching Area

Wide pavement along Market Street will accommodate grandstands for parades and other special events. The pavement will be reinforced to support vehicles and other equipment necessary to service such events.

Block Three

(See Figure #9)

1. National Constitution Center (includes Southwest Corner Marker)

The NCC will provide exhibits, programs and activities focusing on the impact of the United States Constitution on the nation. It will incorporate a Constitution Memorial, with design elements interpreting the significance of the United States Constitution and Bill of Rights. It also incorporates a major public space, with an on-axis view of Independence Hall. It is anticipated that this space will have a high degree of transparency from the Mall to it, and from it out to the Mall. It is also anticipated that its transparency will be taken as an opportunity for a primary location within which to extend components of the landscape treatment into the building. The view from the NCC looking towards Independence Hall, illustrated in Figure #10, is from the position which this primary public space would occupy. A night-time view of the NCC from Block One is shown in Figure #11.

The NCC will have one set of restrooms which can be accessed from the exterior of the building for use by park visitors or when the NCC is closed.

2. Gateway Element (Northwest Corner Marker)

The Gateway Element shall be located on the northwest corner of Block Three as indicated in the Master Plan drawing. The Gateway Element, including signs and architectural, sculptural and/or landscape features, shall provide a signal to arriving visitors that they have entered the park and historic area. This element can be structural, sculptural or vegetative (or all three).



This element must clearly convey to those arriving from this direction that they are entering the precinct of a National Park, and respond to the associated expectations that this precinct is a special place within the City. If appropriate, height and material limitations expressed elsewhere in these guidelines may be relaxed if doing so can be demonstrated to be of interest of providing such a gateway element.

The Gateway Element will clearly identify the Mall as a part of the National Park Service and will incorporate the NPS arrowhead. Immediately adjacent to the Gateway Element there will be a secondary signage system for directional wayfinding. This sign will be easily and quickly understood from a moving car or bus indicating the respective parking and drop-off locations.

3. Maintenance Facility (includes Northeast Corner Marker)

This will be a secure 10,000 sf storage structure to be constructed in conjunction with the National Constitution Center. It will house equipment and supplies for the maintenance of the Mall as well as landscape materials, plants, mulch and soil. An easily accessible area of the facility will accommodate special events storage (podium, flags, chairs, tables, etc.). This facility is to have suitable vehicular access with minimum affect upon adjacent facilities. Additional programming of this facility will be undertaken in conjunction with the programming phase of the National Constitution Center project. Design of this vehicular access and egress must minimize conflict with, and delays of, on-street traffic through the use of appropriate off-street access design.

4. Underground Bus Terminal

The Master Plan recommends an underground facility where charter buses can unload and load passengers, to be constructed in conjunction with the National Constitution Center (see Appendix, section A). It has also been proposed that additional underground parking for visitors to the NCC and the park would be incorporated into this underground bus dropoff/loading facility. This proposal is the focus of a feasibility and traffic engineering study which as of the date of these guidelines has not been completed.

As proposed in the Master Plan, buses would enter the terminal from Race Street and drop visitors at the south end of Block Three. Pedestrians might then proceed south by a tunnel under Arch Street to Block Two, or by stairs into the Mall onto the south end of Block Three (Southeast Corner Marker), or directly into the NCC. After discharging passengers buses would then exit the terminal onto Fifth Street and proceed to a remote parking lot (to be developed by the City of Philadelphia) until it is time for passengers to reboard.

5. Large Amphitheater

A lawn area will be incorporated into the design of the northern end of Block Three, which could be converted for multiple program uses, especially those associated with the NCC, such as the amphitheater shown. This space, although connected to the rest of the Mall, is suitable for use for ticketed performances and special interpretive events. It will thus extend the Mall's open space programming flexibility by providing a type of open space that does not otherwise exist in the Master Plan -- space enabling controlled access, and the associated availability for

special events. Its primary function will be to serve passive and active outdoor events and activities associated with the NCC. Design of its enclosure is to be transparent in its combination of low wall and railing, such as prescribed for elsewhere along the inside edge of the sidewalk around the perimeter of the Mall. Design of its enclosure also must accommodate recognition of its position at a major visitor arrival point, and offer a correspondingly welcome "front façade" for the park at this location.

When not in use for such activities, the area can be used for picnicking by school groups. The amphitheater will be enclosed by a covered arbor, and can be gated at night. Electrical power will be available to this area. Provisions will be made to reduce the impact of traffic noise from Race Street.

6. Passive Seating Area

There will be an additional seating area to the east of the NCC where visitors, residents or office workers may rest or bring their lunch. This area will be accessible to active interpretive sites and the activity of daily visitation.

Chapter Four

SUSTAINABLE PRACTICES

The National Park Service has adopted sustainable practices as the guiding principle for the Mall planning and development. Sustainable principles will thus permeate all aspects of the design, construction and operation of the Mall. By definition, sustainable practices means meeting present needs without compromising the ability of future generations to meet their own needs. Specifically, sustainable practices utilize the best available solutions within the design tradition of the NPS, incorporate environmentally sensitive construction methods, seek to conserve non-renewable global resources, utilize energy efficiently, recycle materials and waste, and specify ecologically responsible methods, practices and materials in the construction of park infrastructure.

Sustainable practices embody the philosophy that human development should exemplify the principles of conservation, and encourage the application of those principles in our daily lives. The primary goal of sustainable practices is to lessen the harm poorly designed environments (buildings, cities, and landscapes) cause by using the best of ancient building approaches in logical combination with the best of new technological advances. Sustainable practices result from the recognition and emulation that in nature there is no such thing as waste. The by-product of one cycle is the food/fuel for another. This implies interconnections. The reason this chapter is placed here within the Guidelines is to serve as an overarching objective for interconnected solutions for work defined in the following chapters.

These standards are intended to provide a basis for achieving sustainability in the planning, design, operation and maintenance of the buildings and landscape of Independence Mall, to emphasize the importance of biodiversity, and to encourage responsible development decisions in the Mall. The goal is to provide opportunities which affect visitor perceptions of the natural and cultural world, and to develop conservation-oriented values.

A. Design and build energy efficient buildings

- incorporate high levels of insulation and high performance windows, and make buildings as airtight as possible (allowing for the preference for operable windows)
- minimize cooling loads through careful building design, glazing selection, lighting design, and landscaping
- utilize renewable energy resources to meet energy demand wherever and to the degree possible (i.e. passive and active solar technologies, geothermal, etc.)
- install energy-efficient mechanical equipment, lighting, appliances, and controls/sensors
- design for off-peak energy use (i.e. ice storage, etc.)
- refer to Chapter 11 Engineering Standards for additional energy efficiency requirements

- B. Optimize design to make use of smaller spaces and utilize materials efficiently
- simplify building geometry to save energy and materials
 - design building dimensions to optimize materials use and reduce cut-off waste
 - cluster those program elements that can share systems with separate controls, allowing service to those areas to be modified as the operation requires
 - design building elements that respond appropriately to the different environmental impacts they receive (eg., north walls being different from south)
- C. Preserve or restore local ecosystems and biodiversity
- specify and use native species of plant material and plants traditionally well adapted to the region to the degree appropriate
 - during construction protect trees, topsoil, and existing structures intended to remain
 - reflect bioregional conditions through design and construction
 - integrate indigenous materials and crafts into structures, native plants into landscaping, and local customs into programs and operations
 - specify landscaping materials which require little or no herbicide use
- D. Specify low-environmental impact, resource-efficient materials
- avoid materials that generate a lot of pollution (VOC's, CFC's, HCFC's, etc.) during manufacture or use
 - specify materials with low embodied energy (the energy used in resource extraction, manufacturing, and shipping)
 - specify materials produced from waste or recycled materials
 - specify materials salvaged from other uses
 - avoid materials that unduly deplete limited natural resources, such as old-growth timber or exotic woods
 - avoid materials made from toxic or hazardous components (benzene, arsenic, etc.)
 - specify materials that are recyclable, avoid composite materials which cannot be recycled
 - specify, as much as possible, materials which are produced locally
- E. Design for durability and adaptability
- specify durable materials
 - design material assemblies to prevent premature decay
 - design for easy maintenance and replacement of less durable components
 - design for future function adaptability
 - create architecture which is timeless and not associated with any fad or style
 - design buildings with a life expectancy of more than 50 years
- F. Design buildings and landscapes which are water-efficient and water conserving
- provide low-water-use landscaping (xeriscaping)
 - collect and use rainwater for irrigation and exterior building cleaning
 - separate and use graywater for water closets, urinals, and irrigation
 - install water-efficient plumbing fixtures and appliances
 - install landscaping to prevent soil erosion
- G. Provide a safe and comfortable indoor environment
- design air distribution systems for easy cleaning and maintenance

- avoid mechanical equipment that could introduce combustion gases into the building
 - avoid materials with high rates of VOC offgassing such as standard particleboard, some carpets and adhesives, and certain paints and insulations
 - control moisture to control mold and mildew
 - introduce daylight to as many spaces as possible
 - design buildings to provide sun shading for large expanses of glass which are exposed to direct sunlight
 - provide heat-recovery ventilation in all occupied portions of buildings
 - allow building occupants to control their environment with features like operable windows, task lighting, and temperature control
 - specify a "bake-out" period prior to building occupancy
- H. Reduce, return, reuse, and recycle job-site waste and practice environmentalism
- require contractors to sort construction and demolition waste for recycling
 - encourage contractors to donate reusable materials to non-profit organizations or community groups where they can be used to build or improve housing stock
- I. Minimize the environmental impact of the building maintenance and operations so that the facility can operate and be maintained at the same or higher level as was designed and constructed, continuing the use of sustainable concepts
- use energy efficient office machines
 - purchase fuel-efficient service/institution vehicles and promote the use of public transportation and carpooling by employees
 - use recycled paper in the offices and recycle wastes generated in the offices
 - locate many and convenient recycling stations in buildings and throughout the Park
 - develop a maintenance management system for daily and long-term operations that minimizes environmental impacts
 - provide dedicated and suitably sized areas for recycling (ie. newspapers, cans, glass, etc.) both within the public and non-public areas of the buildings and the Mall
 - select healthy plant material of an adequate size for an urban environment
 - create optimum environments for growing plant material
 - install appropriate and adequate setting beds for paving materials
 - develop a regular program for maintaining buildings and landscapes
- J. Incorporate interpretive elements which focus on conservation and historically appropriate principles of sustainability
- interpret previous historical conditions at the site
 - emphasize opportunities for sensing and learning about local resources
- K. Reference Materials:
- "Guiding Principles of Sustainable Design", September 1993, United States Department of the Interior, National Park Service, Denver Service Center.
 - "Environmental Resource Guide" with Supplements, Joseph A. Demkin, AIA, Editor, The American Institute of Architects, John Wiley & Sons, Inc, New York, 1997.
 - "A Primer on Sustainable Building", Rocky Mountain Institute.

Chapter Five

ARCHITECTURAL STANDARDS

A. General

The goal of the architectural standards is to describe the architectural elements and character envisioned for the new buildings in Independence Mall and give direction for achieving coherence as the Master Plan is implemented, incrementally over time. The new buildings shall not be mock historical buildings. The overarching character of the new buildings should be of a decidedly contemporary architectural style while using historical or classical design principles and devices.

In addition it is a fundamental goal of these Guidelines that the three block park with its landscape and structures shall be a coherent ensemble, rather than a collection of individual and unrelated design statements (which is one of the major recognized deficiencies of the Mall in its existing condition.)

The overall massing and height of the new buildings along Sixth Street should be adequate to satisfy the Plan's overall urban design goals, including: an enlarging physical presence along Sixth Street as the buildings progress northward; providing a satisfying edge to Sixth Street; minimizing or eliminating the view of the buildings along the west side of Sixth Street from within the Mall adjacent to the new Mall buildings; providing an unimpeded view to Independence Hall from each new building; establishing an ensemble of buildings within a cohesive park, rather than isolated and unrelated structures.

In addition, the architectural expression of that massing should preclude uninterrupted or unarticulated masses of blank exterior wall, especially along either the Sixth Street or Mall sides of any new building. In cases where the internal programming of a particular building may necessitate large unfenestrated expanses of exterior wall, the architectural expression and modeling of that wall must incorporate scaling devices compatible with those that would have been offered by the fenestration.

B. Building Massing

1. Building Height

a. Block One

Liberty Bell Pavilion Interpretive and Queuing Areas - The eave line shall not exceed 40'-0" in height. The roof shall slope and not exceed 50'-0" in height. (These dimensions derive from corresponding lines on Independence Hall.) Gable end(s) are permitted.

Liberty Bell Chamber - The height shall be derived from the particular constraints as set by the Bell Chamber program (i.e. required intimacy between the visitor and the Bell and the proportions of the space to create this intimacy). Additionally, the height of this portion of the building should not compete for attention with Independence Hall but should allow an unobstructed view of the spire of the Hall

while in the Bell Chamber. The height shall be reviewed by the National Park Service.

Corner Markers and Restroom - The eave line shall not exceed 12'-0" in height with no roof appurtenances higher than 24'-0".

b. Block Two

Gateway Visitor Center - The eave line shall be 40'-0" in height. The roof shall not exceed 50'-0" in height. Gable end(s) are permitted.

Independence Park Institute - The eave line shall be 40'-0" in height. The roof shall not exceed 50'-0" in height. Gable end(s) are permitted.

Cafe Kiosks - The eave line shall be 12'-0" in height with no roof appurtenances higher than 24'-0".

Corner Markers - The eave line shall be 12'-0" in height with no roof appurtenances higher than 24'-0".

c. Block Three

National Constitution Center - The eave line along Sixth and Arch Streets shall be 40'-0" in height and the roof along Sixth, which shall be pitched, shall not exceed 50'-0" in height. Gable end(s) are permitted. Other portions of the building may have flat roofs but shall be no higher than 65'-0". Refer to Building Placement Diagram - Block Three, Figure #14.

National Park Service Maintenance Building - The eave line shall not exceed 14'-0" in height with no roof appurtenances higher than 24'-0".

Gateway Element - Because of the potential unique qualities of this key element of the Mall, height restrictions shall not be stipulated here. The height of the Gateway Element should, however, not compete with Independence Hall and must be compatible with the other structures on the Mall.

Corner Markers - The eave line shall not exceed 12'-0" in height with no roof appurtenances higher than 24'-0".

- d. Building height shall be measured from the sidewalk adjacent to the structure (at the main entrance) to the highest roof or element of the structure.
- e. Generally, the entrances of the buildings shall have the same elevation as the sidewalk outside the entrance(s). Since the west entrances to the structures located on top of the existing parking garage will be unable to meet this criteria, the design of these buildings should provide easy accessibility, both physically and psychologically, with an attempt made to keep entrances as low and close to the adjacent Sixth Street sidewalk as possible.
- f. Building elements (i.e. chimneys, railings, trellis structures, etc.) which may extend above the roof height limit shall be reviewed on a case by case basis by the National Park Service.



2. Building Placement

- a. Buildings shall be placed according to the requirements illustrated in the Building Placement Diagrams, Figures #12,13, and 14.

C. Street Facade/Park Facade Concepts

1. General

The purpose of the following standards is to carefully and clearly distinguish between design approaches on the street facades and the park facades. These guidelines do not encourage different architectural treatment of both facades. One aspect which is applicable to both required facades at ground level is the desired high degree of transparency through the buildings from the street to the park and from the park back to the street, particularly at the alleyways. This design consideration is intended to provide a device through which to break down the scale of the buildings along Sixth Street, and to provide pedestrians and vehicle passengers along Sixth Street with glimpses through the buildings into the park. The treatment and sizing of any such areas of transparency must be carefully coordinated so as not to compromise the internal programmatic and functional goals of the new buildings along Sixth Street.

2. The street facades shall be of a distinctly urban character including but not limited to the following features:

- No more than 10% of the facade may be set back from the build-to lines as indicated in the Building Placement Diagrams.
- Traditional construction of masonry and stone will be used. Openings shall be more vertical than horizontal (i.e. 1:2 and 1:3) windows shall be recessed.
- Fenestration and decorative devices may include special brick or stone courses, string courses, cornices, trelliswork, etc.
- Entrances shall be clearly defined and in proportion to the rest of the building.

3. The park facades can be less urban in character than the street facades, i.e. more open, with larger expanses of glass, porches, terraces, balconies, sunscreens, treillage, etc.

- There will be a high degree of transparency into and out of the buildings (especially at the first floor), the placement and design of which must be coordinated with the buildings' overall programs, circulation patterns, and exhibits.
- Light from inside the buildings will be allowed to spill out into the Mall at night. Exposed to view fluorescent light fixtures shall be avoided. When interior light sources are exposed to view they should be designed so that the glare from the lamp is not seen. The quality of the light should be "warm" (e.g., incandescent and halogen light sources).

4. These architectural standards promote the use of brick and stone as the primary building materials. It is the intention of these guidelines that new buildings on the Mall shift the emphasis of these primary materials from brick, on buildings closest to Independence Hall, to stone, on buildings furthest from Independence Hall. This strategy allows for the changing scale of buildings from Independence Hall north to the National Constitution Center. This standard was derived from the larger context of the Park, in the urban setting of which similar combinations of materials have been utilized to accommodate transitions of scale and size.

D. Street Facades

1. General

- Definition: Street facades are defined as those facades which face Fifth, Sixth, Market, Arch and Race Streets.
- Foundation walls above grade shall be either the material of the wall above or stone or brick
- Materials should be graffiti resistant or have an applied coating which will resist graffiti. Applied coatings shall not discolor over time.
- Design of the building envelope must provide acoustic isolation from the street.

2. Materials

The following are permitted:

- Stone: limestone, marble, granite, slate, cast stone and bluestone
- Brick, which is compatible with the brick used on Independence Hall
- Aluminum curtainwall and storefront
- Wood storefront
- Metal, including lead coated copper, aluminum, stainless steel
- Wood
- Glass
- Steel

3. Configurations:

- Building shall appear to be of bearing wall construction.
- Window lintels in the form of stone flat arches or jack arches are permitted. These lintels shall be mitered at the jambs and shall bear beyond the opening a dimension no less than their height (a good example is the Free Quaker Meeting House at Fifth and Arch Streets). Other types of visible lintels shall bear beyond the opening a dimension no less than their height.
- Brick is required to be the primary building material on Block One, brick and stone on Block Two, and stone on Block Three.
- The use of brick watertables is encouraged to distinguish the upper wall from the base.
- Arches and lintels shall be constructed as true bearing elements. Soldier courses supported on steel angles shall not be permitted, however exposed steel wide flange sections may be used as lintels.
- Curtainwall/storefront construction shall be interrupted at columns, beams, and floors with a different (other than glass) building envelope material.
- A brick second story may be supported on a marble or limestone first story.
- Openings above the first floor shall be more vertical than horizontal.

4. Elements/Materials Not Permitted:

- Balconies on the 6th Street facades
- Exterior insulation and finish system (EIFS)
- Glass spandrel panels
- Metal panel column/wall/soffit systems
- Curtain wall systems except at atria and entrances to buildings
- Reflective glass
- Painted masonry

E. Park Facades

1. General

- Definition: Park facades are defined as those facades which do not face directly onto a city street.
- Materials should be graffiti resistant or have an applied coating which will resist graffiti. Applied coatings shall not discolor over time.
- Design of the building envelope must provide acoustic isolation from events on the Mall.

2. Materials

The following are permitted:

- See as for street facades above.

3. Configurations

The following are permitted:

- Curtainwall/storefront construction can be independent of building structure both horizontally and vertically.
- Balconies and roof terraces

F. Windows and Doors

1. Materials

The following are permitted:

- Clear low-E insulated glass
- Painted wood
- Aluminum storefront/curtainwall using a 3-coat fluoropolymer paint system.

2. Configurations

The following are permitted:

- See standards for street facades and park facades above.
- Individual windows within the wall fabric
- Window sills which project between 1" and 4"
- Semi-circular masonry opening head at entrances only
- Muntins and other devices to break up large expanses of glass, strongly suggested
- Windows recessed from the exterior wall plane

3. Elements Not Permitted:

- Reflective glass
- Snap-in or false mullions/muntins
- Sliding, awning or hopper windows

G. Roofs, Gutters, and Downspouts

1. General

A consistent unified image of the roof construction is required. The intent is to be harmonious with (without mimicking) early American and colonial era buildings. Generally the buildings shall have eaves and pitched roofs. However because of the size of some of the buildings, portions of the roof may be flat. Refer to the Building Placement Diagrams which indicate the areas in the buildings where pitched roofs will be required.

The roofs of the buildings on the Mall will be visible from surrounding taller buildings. These areas should therefore be considered as a building facade and must be given appropriate design consideration, with particular attention to the treatment of any mechanical penthouses. Schematic designs submitted to the National Park

Service must include the proposed treatment of the building's roof including all equipment and enclosures.

All roof mounted structures and appurtenances such as satellite dishes, TV antennas, solar collectors, mechanical equipment, etc. shall be visually integrated, screened, and architecturally compatible with building in an historic district.

2. Materials

The following are permitted:

- Only plain copper downspouts, if exposed to view
- Slate shingles
- Cementitious based shingles
- Flat (not barrel) terracotta tile shingles which simulate wood or slate similar to the Free Quaker Meeting House
- Glass skylights
- Standing seam metal roofing

3. Configurations

The following are permitted:

- Downspouts may be exposed on exterior of building (interior rainwater conductors may be used for flat roofed areas not exposed to view).
- Gutters shall be integral with the roof, similar to Independence Hall and the Free Quaker Meeting House.
- Roofs exposed to view shall be pitched; the range of allowable roof slopes shall be from 4/12 to 6/12.
- Mechanical penthouses shall be integrated into and compatible with the general architecture of the building and appear to be a habitable top floor.
- Eaves shall be provided. The depth of the eave shall be designed to be compatible with the height and scale of the building.

4. Elements Not Permitted:

- Built-up roofing or similar low-grade roofing materials
- Exposed-to-view rooftop mechanical equipment
- Exposed-to-view gutters
- Corrugated downspouts
- Barrel terracotta roof tiles
- Asphalt shingles

H. Porches and Covered Walkways

1. General

Covered walkways are defined as open passageways through buildings and the Liberty Bell Queuing Area.

2. Materials

- See section D.2 above

3. Configurations

- Covered walkways shall be located only at the locations of the alleyways and the Liberty Bell Pavilion Queuing Area.
- Covered walkways which will be used for vehicular access to buildings and/or the Mall shall be the full width of the alleyway by 14' high over the roadway.

- Soffits/ceilings of covered walkways through buildings shall utilize cement plaster, masonry or stone vaults.
- Porches may be enclosed or open to the elements.

I. Alleyways through Buildings

The east-west alleyways shall be visually continuous from Sixth Street to Fifth Street. Where the alleyways pass through buildings, the selected flooring materials inside the building shall imply the continuation of the alleyway. Visibility through the buildings at these locations should be maintained for the width of the alleyway by no less than 12 feet high. The design of the building envelope at these locations should express the unique qualities of this intervention. It is recommended that the building entrance(s) be located at or adjacent to these locations.

This guideline goal should not compromise either the quality of the visitor experience within the buildings, or the efficiency of the programming and functional layout made on behalf of that experience. Instead it anticipates a direct or symbolic overlay of this site design feature in and through the buildings.

J. Building Signage

1. Definition: The use of the word sign is meant to apply to all written and/or graphic information installed in, on, or around the buildings.
2. Signs will be strictly regulated to allow easy recognition and legibility. Signs shall maximize visual quality, and promote a harmonious and consistent image for the total park.
3. Building Name Signs shall be applied metal letters or sandblasted/carved stone in the building wall, on an entrance canopy or trellis, or on a separate pylon or marker.
4. No signs shall be located above the eave line of any building.
5. All signs shall be reviewed and approved by the National Park Service.
6. No signs shall be allowed to be taped to building windows or walls inside or out.
7. All signs shall be consistent for all of the buildings.
8. All signs must conform to NPS sign guidelines (under preparation).

K. Color Palette

1. Colors should be muted and in keeping with the historical context of the other buildings in the park.
2. Bright colored building materials should be avoided. Graphic components -- flags, banners and signage -- will be evaluated for factors including their overall legibility and visibility, which will entail a brighter and more lively color palette than that of the building materials.

L. Building Lighting

1. Interiors of buildings adjacent to large expanses of glass curtainwall should be well lit such that light spills out into the surrounding streets and park. Even if the buildings are closed they should present a welcoming and animated impression to passers-by and allow people to view interior exhibits and interpretive information.
2. Selected first floor lighting adjacent to pedestrian walks and paths should be on until 12:00 midnight.
3. Building exterior lighting should not detract from the interior lighting which spills out through the windows.
4. Building entrances should be provided with adequate illumination for safety. Entrance lighting should be accomplished with fixtures in canopy or trellis structures.
5. Building entrance signage shall be front lit.

6. Lighting for buildings on the south end of Block One (Liberty Bell Pavilion/Chamber and public restrooms) shall be compatible with the lighting of Independence Hall and shall not detract from Independence Hall.
7. Design of lighting should limit glare from fixtures and reflections.

Chapter Six

LANDSCAPE AND SITE STANDARDS

A. General

The goal of the landscape and site standards is to describe the landscape elements and character envisioned for the new outdoor areas of Independence Mall. These Design Guidelines are intended to clarify the design intent of the Master Plan and to provide parameters for more detailed design development phases of the project, when specific quantities, locations and specifications will be determined.

B. General Design Criteria

1. Vegetation:

- a. Reinforce the sense of place and identity of Independence National Historical Park. Enhance the connections and continuity of the Mall with the surrounding neighborhood.
- b. Preserve and protect existing trees of good quality, health, structure and inherent suitability for their location within the plan.
- c. Maintain and enhance particular unobscured views of Independence Hall. (see Views and Viewshed Diagram, Figure #15).
- d. Select native or culturally contextual plant material which complements and supports interpretive themes throughout the landscape.
- e. Select plant material which is non-invasive and represents a diversity of species to avoid monoculture.
- f. Provide shade and other climate amelioration and pedestrian amenity (flowers, foliage, fragrance, form).
- g. Provide plant material which is low-maintenance and disease-resistant.
- h. Use coniferous trees sparingly so as to maintain visibility through the Mall and light in winter.
- i. Screen undesirable/unattractive views from within the park.
- j. Avoid shrub masses which create security problems, rodent habitat and trash collection.
- k. Plant groundcover strategically to minimize rodent problems.
- j. Design lawn areas to support limited vehicular access.

2. Paving:

- a. Select paving materials and patterns which are consistent with the character and quality of the surrounding INHP such as brick, bluestone, cobblestone, granite, marble, and decomposed granite. Avoid use of patterned or tamped concrete or asphalt.
- b. Select paving materials which, when properly installed, prevent tripping hazards, ensure ease of snow removal and maintenance, and are as non-reflective and non-heat-retentive as possible.
- c. Design all paved areas to support vehicles (see Paving Detail, Figure #16).

Determine the maximum loading requirements for each paved area based upon type of vehicles needed or permitted in each location (fire truck, crane, tractor trailer, vans, mowers, etc.).

- d. Ensure that paving materials and patterns for handicapped-accessible curbscuts and sidewalk ramps meet ADA requirements.
- e. Salvage and reuse appropriate existing paving and curbing materials in good condition.

C. Streetscape. See Appendix.

D. Mall Interior:

- 1. Grading/Slopes/Drainage:
 - a. Provide ADA accessibility throughout the park.
 - b. Utilize pervious pavements and recharge areas to greatest extent possible to minimize runoff to surrounding drainage system.
 - c. Avoid excessive washing and standing water on all public walkways.
 - d. Provide suitable friction for traction on all sloped walkways.
- 2. Paved Surfaces
 - a. Primary north-south path along building edge:
 - 1. Minimum width: 20'-0".
 - 2. Paving material: Brick with stone bands.
 - b. Primary north-south path along wooded edge:
 - 1. Width: 10'-0" to 12'-0".
 - 2. Paving material: Brick.
 - c. East-west alleyways:
 - 1. Width: 14'-0" to 16'-0".
 - 2. Paving material: Granite cobblestone center strip (8" x 4" units), brick/bluestone edge bands with stone curbs. Curbs shall be flush whenever alleyway crosses another path. All alleyways within the same block shall be the same width.
 - d. Diagonal paths:
 - 1. Width: 8'-0" to 10'-0".
 - 2. Paving material: Brick.
 - e. First Amendment area:
 - 1. Size: 2500 square feet (max. length 80', max. width 40').
 - 2. Paving Material: Stone (possibly marble salvaged from second block) or granite. Stone may be engraved with the text of the First Amendment.
 - f. Cafe seating area
 - 1. Paving Material: Decomposed granite and stone pavers.
 - g. Paths within Quaker Meeting House Garden:
 - 1. Paving Material: Decomposed granite and stone pavers.
 - h. Liberty Bell queuing area:
 - 1. Brick with stone bands.
 - 2. Stone.
 - i. Public Restroom area:
 - 1. Brick.
 - j. Garden areas in first block:
 - 1. Decomposed granite and stone pavers.
 - k. Ramps to parking garage on Block Two, and bus terminal on Block Three:
 - 1. Broom finished concrete. If and where appropriate, asphalt or precast

concrete unit pavers or other acceptable materials compatible with the new landscape can be considered at the entrance aprons of the ramps, at sidewalk level.

3. Walls, Steps, Fences and Railings:
 - a. Wall along park periphery along Fifth and Sixth Streets (see Sketch of Fence along Park, Figure #18).
 1. Materials: Brick wall with limestone base and capstone topped with wrought iron or similar material fence to achieve maximum transparency.
 2. Height: Ideally wall should not exceed 18" unless needed for retaining purposes or to meet existing conditions and requirements. Fences above walls should not exceed 4'-0".
 3. Walls and fences should have openings at all street corners and alleyways.
 4. Fences shall be transparent in nature.
 - b. Freestanding seatwalls in central lawn:

These seatwalls shall be designed to discourage skateboard use. A rough paving strip adjacent to the wall, or other methods to be designed, will be implemented to assist in the prevention of skateboard use. Paving will surround seatwalls on all sides.

 1. Height: 16" - 20"
 2. Material: Stone: Granite, marble, masonry (brick or local schist)
 3. Locations: As per plan
 - c. Wall or fence around Free Quaker Meeting House Garden:
 1. Height: Walls up to 18" in height or as needed for retaining purposes, Transparent fence above wall, not to exceed 4'-0".
 2. Materials: Brick walls with limestone or brick base and limestone capstone. Wrought iron fence.
 3. Locations: As per plan.
 - d. Amphitheater seatwalls and other retaining seatwalls:
 1. Height: 16" - 20".
 2. Material: Stone: Granite, marble, masonry (brick or local schist).
 3. Locations: As per plan.
 - e. Walkway ramps:
 1. Height: Slope shall not exceed 5% and shall meet all ADA requirements.
 2. Material: Shall meet ADA requirements.
 - f. Steps:
 1. Height: Shall meet codes in Chapter Five, Applicable Codes.
 2. Material: Stone or brick.
 - g. Railings:
 1. Height: Shall meet codes in Chapter Five, Applicable Codes.
 2. Material: Wrought iron, bronze.
4. Vegetation:

Select native and culturally appropriate non-native species which support interpretive themes. A complete plant material schedule will be included in the Design Development documents.

 - a. Canopy trees:
 1. Species including: Chestnut, Elm (when available), Sweet gum, Oak, Maple, Tulip Poplar, Hickory, Sycamore.
 2. Minimum height, 14'-0" ; minimum spread, 6'-0"; caliper 4 1/2 - 5".
 3. Spacing: As per plan.

- b. Understory trees:
 - 1. Species including: Franklinia, Dogwood, Cherry, Hawthorn, Magnolia, Redbud.
 - 2. Minimum height, 8'-0"; minimum spread, 4'-0"; caliper 2.5". Multiple stems may be considered.
 - 3. Spacing: As per plan.
 - c. Shrubs:
 - 1. Species : Shall include native and culturally appropriate non-native species.
 - 2. Minimum size: 12" - 18" height.
 - 3. Spacing: As per plan.
 - d. Vines:
 - 1. Species including: Wisteria, grape vine, virginia creeper, roses, clematis, dutchman's pipe.
 - 2. Spacing: Planting pockets along arborway and walls to be designed.
 - e. Groundcover:
 - 1. Species including: English ivy, Periwinkle, Wintercreeper.
 - Select species with regard to decorative characteristics (flowers, fruit, foliage).
 - 2. Height:
 - Select low growing species (twelve-eighteen inches (12" - 18")) maximum height.
 - 3. Spacing: Based upon selected species.
 - Plant groundcover in an equilateral triangular grid.
 - Space groundcovers so that given the plant size and pot size, the plants will grow together within two years.
 - No ground cover is to be planted into or through the rootballs of the trees.
 - f. Lawn/grass:
 - 1. Species: select varieties which will thrive in the specific soil and microclimatic conditions of the site.
 - 2. Solid sod only.
 - 3. Reinforcing: Lawn areas which are anticipated to receive intensive use shall be installed with lawn reinforcing systems.
5. Planting Over Structures:
- Design Intent: A healthy plant needs a volume of soil such that it can supply the plant roots with stable anchoring, water, air, and nutrients. Planting over structure rather than terra firma means constraining the volume of soil available for a plant's growth and insulating it from unheated structures, ramps, garages, tunnels, etc. The plant should not just have the 'minimum' requirements that allow for survival, but rather the optimum conditions that will allow the plant to thrive.
- a. Provide appropriate drainage, waterproofing and insulation for all landscaping over structures.
 - b. Utilize existing tree wells where appropriate.
 - c. Recognize Philadelphia Parking Authority's expectation that planting design will not require additional reinforcing of garage.
 - d. Provide a tree well with a minimum surface area of 200 square feet for each tree.
 - e. Ensure that the walls of permanent planters be no more than 18 inches above adjacent finished grade.
 - f. Provide a minimum depth of planting soil, not including drainage or waterproofing system, as follows:

| | |
|-----------------------|-------------------------|
| Trees | 4'-0" wherever possible |
| Shrubs | 2'-6" |
| Groundcover | 1'-6" |
| Perennials | 1'-6" |
| Annuals | 1'-0" |
| Vines | 1'-6" |
| Lawn | 1'-0" |
| Ornamental grasses | 1'-6" |

6. Irrigation and Maintenance:

- a. Provide an on-going maintenance program and an automatic irrigation system that includes provisions for replacement and meets the required standards of the National Park Service.
- b. Match seasonal water needs of plant material with irrigation management programs which balance volume of water provided with seasonal preliminary rates of evaporation and transpiration for size and type of plant in question.

7. Landscape Structures:

- a. Arbors (at arborway, building entrances, café kiosks and corner markers)
 1. Height: Generally 12 feet to the lowest trellis member and no more than 15 feet when trellis must step down or up to accommodate a grade change.
 2. Materials: Generally, the arbors shall be constructed using brick columns with limestone bases and tops supporting wood primary spanning members between columns. The primary wood in turn will support longitudinal wood members. These secondary wood members will support painted steel sections with painted steel rods. The arbors will be planted with vines and other climbing plants. Refer to Figure #19 for Arborway design details.
 3. Location: Refer to Master Plan drawing.
 4. Column spacing: Normally 15 feet center to center with other arrangements at particular locations to mark entrances and passageways.
 5. Relationship to buildings: The arbors may be freestanding or attached to the buildings, however their position is fixed by their location on the Master Plan drawing. A minimum of 30% of the length of the arborway adjacent to buildings must be freestanding and at least five feet from the building.
- b. Café Kiosks:
 1. Building height: Refer to Chapter 5.
 2. Materials: Refer to Chapter 5.
 3. Location: Refer to Master Plan drawing.
 4. Equipment requirements: Electricity, potable water, waste disposal, storage for moveable furniture, appropriately sized restrooms (for patrons only).
- c. Public Restrooms:
 1. Building height: Refer to Chapter 5.
 2. Materials: Refer to Chapter 5.
 3. Location: Refer to Master Plan drawing.
 4. The architectural character of the restrooms should be consistent with the other park buildings and not call attention to their function as restrooms.
 5. Both male and female sides should have facilities for diaper changing.
 6. Entrances should be oriented towards park interior and be readily identifiable.
 7. More fixtures should be provided for females than for males in order to

reduce disproportionate waiting times.

8. Unisex toilet rooms should be provided for parents traveling with children of the opposite gender.

8. Site Lighting:

- a. General criteria: (refer to Chapter 5).
The intent is for a majority of the park to be illuminated from the building windows and arborway along the west side and from tree mounted fixtures in gardens on the east side. These east and west areas should receive pole mounted luminaries and the greatest intensity of illumination, grading to a lower intensity toward the central lawn areas. Pole mounted luminaries shall not be placed in the open lawn areas.
- b. Coordinate park interior luminaries with those selected for the streetscape areas and new buildings.
- c. Include lighting requirements and fixtures for the following elements:
 1. Arbors (within or beneath trellis structure).
 2. Along eastern planted edge.
 3. Along fence on Fifth and Sixth Streets.
 4. Within café and other seating areas.
 5. Special events areas (Theatrical lightning not included.)

9. Site Furnishings:

- a. Coordinate and integrate all new park furnishings with new building furnishings and streetscape.
- b. Develop a unified coordinated ensemble of furnishings:
 1. Benches
 2. Tables and chairs
 3. Umbrellas
 4. Light Fixtures
 5. Trash and recycling receptacles
 6. Drinking fountains
 7. Tree grates
 8. Planters
 9. Bicycle racks
 10. Flag poles
 11. Banners and their mounts
 12. Bollards
 13. Handrails
 14. Fences
- c. Select/design furnishings consistent in color, material, finishes and style.

10. Signage: (Refer to Interpretive Standards, Chapter 8)

- a. Coordinate and integrate all new building, directional and interpretive signage.
- b. Provide a highly visible image to:
 1. Identify INHP, the Gateway Visitor's Center, parking garage, Liberty Bell Pavilion, National Constitution Center, and other park elements.
 2. Unify the various portions of the park as a recognizable image.
 3. Integrate these park areas with other tourist attractions throughout the city.
 4. Improve the appearance of streets and public park landscape.
- c. Develop a unified coordinated approach to sign design for all types of signage

required:

1. Mall entrances
 2. Parking garage entrances / exists
 3. Buildings
 4. Interpretive displays
 5. Wayfinding
 6. Informational
 7. Regulatory
 8. Traffic
- d. Design graphics consistent in color, material, finishes and style.
 - e. Provide signage which is easy to read and conveys orientation and traffic safety information.
 - f. Ensure that all new signage is consistent with INHP standards to be created in Design Development.

INTERPRETIVE ELEMENTS AND VISITOR EXPERIENCE

The overarching interpretive goal of INHP is to connect visitors to the historical events and ideas commemorated in the Park, enhancing their understanding and pleasure. The Master Plan of the Mall constitutes an interpretation which expresses the linkage between town and country in the 18th-century, continuities in design between the 20th-century Mall and 18th-century Square, and the Mall's ongoing function as a site for daily visitation as well as the scene for ceremonies, demonstrations, and special events.

The following guidelines and standards provide a framework for interpretation within the Mall area stretching north from Independence Hall to Race Street. Visitors to INHP will differ in age, gender, background (abilities/disabilities, language fluency), and interest, so interpretive elements must be planned to appeal to a varied audience. Reception, orientation, wayfinding, programming, discovery, and interpretation will be planned to complement and reinforce each other, but it is not expected that all or even any visitors will encounter every interpretive element. Thus each interpretive element is intended to inform and delight independently.

A number of interpretive elements are *prescribed* in these guidelines; most of the elements described below are *optional*. The final selection of themes and formats will be made by INHP during subsequent phases of design.

A. Arrival, Orientation, and Wayfinding

1. Arrival: Since Independence Hall, the focal point of the Mall, may not be clearly visible to visitors arriving from multiple directions, all of the primary corners of the Park (at the intersections of Fifth, Sixth, Chestnut, Market, Arch, and Race Streets) must be clearly marked to identify the Park and Mall and to direct visitors to the Gateway Visitor Center/Parking Garage. This will be accomplished in conjunction with the Corner Markers described elsewhere in these Guidelines.
 - a. A major landmark/sign will be installed at the northwest corner of the Block Three of the Mall which incorporates a NPS or INHP logo/symbol. This indicator must be clearly legible at legal speed limits by automobile drivers approaching from both Race and Sixth Streets. This element can be structural, sculptural or vegetative (or all three). This "gateway element" must clearly convey, to those arriving from this direction, that they are entering the precinct of a National Park, and also respond to the associated expectations that this precinct is a special place within the City. If appropriate, height and material limitations expressed elsewhere in these guidelines may be relaxed if doing so can be demonstrated to be in the best interests of providing such a gateway element.

- b. Signs at other intersections must also be clearly legible by drivers moving at the legal speed limit as well as by pedestrians and wheelchair-users.
 - c. Mall signs within the Park boundary will incorporate a NPS/INHP logo and employ typography, color schemes, and other conventions which are internally consistent with NPS signage. Encourage signage off the mall, which is the responsibility of others, to be compatible with that in use by the City in adjacent neighborhoods. All signs will be fabricated of durable materials resistant to graffiti.
 - d. Information regarding tour times and locations will be provided within the Gateway Visitor Center.
2. Reception: During normal INHP hours of operation, visitors can expect to be welcomed at the Gateway Visitor Center as well as the Liberty Bell Pavilion, National Constitution Center, and Independence Institute. However, provision must also be made for the following supplementary reception services:
- a. Restrooms with toilets, sinks and changing tables for infants will be provided in each block of the Mall, either in one of the designated buildings or in free-standing units. Restrooms will be wheelchair accessible and men's and women's restrooms will be adjacent to each other. All restroom facilities will be clearly marked using international graphic symbols. Drinking fountains and public telephones will be provided in each Mall facility.
 - b. Design for the Gateway Visitor Center, the Liberty Bell Pavilion, and the National Constitution Center, may include provision for visitor-activated, multi-lingual audio programs that are operational during hours. Such audio programs shall be designed as integral elements of the architecture of these facilities.
3. Wayfinding: Visitors to Independence Mall will have Independence Hall or the NCC in sight as anchors to the north and south. However, signs and directional and interpretive elements may be incorporated in the architectural and landscape design to assist visitors in navigating INHP and immediately adjacent neighborhoods.
- a. Schematic plans of the Mall/Park may be provided at major intersections and corners on Blocks One, Two, and Three, keyed to INHP maps. Wayfinding signage should be legible to both pedestrian and wheelchair visitors.
 - b. Directional indicators for Mall and INHP facilities may be embedded in pathways along the arborway (west side), the curved path (east side), intersections of the diagonal paths and alleyways, and primary points of access and egress to Mall facilities. Colors, graphics, and typography will be legible; materials will be highly durable and compatible with materials chosen for pathways.

B. Programs, Performances, and Ongoing Activities

- 1. Programs: INHP and the several Mall facilities will sponsor a variety of interpretive programs and activities on and around the Mall. In addition to Block One space for special ceremonial occasions, Block Two space for major festivals and other events,

and Block Three space for special gatherings, the Mall design will incorporate the following program spaces:

- a. Each programmatic facility on the Mall will include a gathering space capable of accommodating at least one full busload of visitors (approximately 50 adults) located proximate to it: Liberty Bell Pavilion in Block One, Gateway Visitor Center and Independence Park Institute in Block Two, and the forecourt of National Constitution Center in Block Three. These spaces will function as gathering places for NPS and other tours, meeting places for classes and bus groups, and performance spaces for dramatic living history.
- b. Block One will include a space dedicated to authorized First Amendment demonstrations capable of accommodating up to 250 adults.
- c. An amphitheater with raked seating (ADA-accessible with room for wheelchair visitors) will be incorporated into Block Two on the east side of the Mall across from the GVC. The amphitheater will function as an outdoor theatre for NPS Ranger talks, dramatic living history presentations, performances, etc.
- d. A sheltered space for outdoor classes will be provided near the Independence Park Institute.
- e. The shaded eastern third of the Mall will provide areas where visitors can comfortably encounter interpreters.

C. Interpretive Elements and Experiences

1. Interpretive Themes: The NPS has identified a number of primary themes to be interpreted in the Park. Interpretive elements to be integrated into the Mall design will emphasize three primary INHP themes: (1) the evolution of Independence Hall and the Liberty Bell as internationally-recognized site and symbol; (2) 18th century Philadelphia as an economic, cultural, and political center; and (3) popular sovereignty and limited government as fundamental ideas of modern representative democracy.
 - a. The three primary themes are linked and interpretation will therefore overlap and blend across the Park. However, the thematic gradient will intensify in particular areas.
 - b. Each block of the Park will emphasize one of the above-referenced themes: in Block One, the evolution of Independence Hall and the Liberty Bell (Theme 1); in Block Two Philadelphia as an urban center (Theme 2); in Block Three, principles of representative democracy (Theme 3).
 - c. In Block One, interpretation of the Liberty Bell will focus on the center-west side of the block and the interpretation of Independence Hall along the center-east side of the block. In Block Two, interpretation of Philadelphia will focus on the city's urban texture along the center-west side of the block and on Philadelphia's rural character and the American hinterland along the center-east side of the block. In Block Three interpretation of popular sovereignty and limited (constitutional) democracy will be interpreted throughout the block.
2. Interpretive considerations: Interpretive elements may be integrated into the Mall design to emphasize one or more of the INHP themes. Potential locations for such

interpretive elements include the arborway, the pathways and crosswalks, and seating areas.

- a. Interpretive elements (signage, etc.) will be incorporated in the architecture and landscape in order to minimize visual and physical clutter.
 - b. Interpretive elements should engage a variety of senses. For example, representations in relief give visitors a chance to explore by touch (as well as assist sight-impaired visitors), and audio elements encourage listening as well as looking.
 - c. Interpretive elements should encourage active learning and discovery. Interpretive elements may be located in unexpected places (such as the wooded areas), may offer visitors unusual/alternate perspectives on familiar sights (such as a detail of Independence Hall), or may reveal hidden features (such as lost structures or archeological features).
 - d. Interpretive elements should be accessible and legible to visitors moving in various directions through and across the Mall.
 - e. Interpretive elements may be linked thematically or spatially, but some elements should be randomly located so that visitors encounter them serendipitously.
 - f. Archeological features - preserved in situ - at or below grade may be treated as interpretive elements whenever feasible and appropriate.
 - g. Landscape features such as the wooded areas and plantings may be treated as interpretive elements (with emphasis on continuity and sustainability).
3. Interpretive Programs: In addition to interpretive elements incorporated in the final Mall design, INHP may choose to develop other interpretive programs and experiences that make use of the Mall, but do not require additional architectural or landscape design. Examples of such programs include guided and self-guided tours; performances and demonstrations; print materials such as maps, guidebooks, and menus; and special events.

Chapter Eight

SPECIAL EVENT STANDARDS

A. General:

In addition to providing services and interpretation to visitors coming to Philadelphia to see Independence Hall, the Liberty Bell and other attractions in Independence National Historical Park, the National Park Service allows a variety of special events to take place on Independence Mall. According to the goals and strategies of the General Management Plan, the NPS "will continue to provide a setting for First Amendment rights demonstrations, ceremonies, and other activities that are directly related to the park's purpose, significance, and management philosophy...[and] will provide locations for other activities that enliven the experience of the park and do not denigrate park resources." (GMP, p. 1-7) Furthermore, the Park Service intends to become more proactive in engaging the community of Philadelphia in the park and to provide a home for cultural and ethnic organizations, to inspire them with a sense of ownership in a place which otherwise may seem to belong only to tourists and to history. While an increasing number and variety of special events are anticipated for the redesigned Mall, the goal is to accommodate these events without significantly impacting daily visitation to the Hall and the Bell.

The Master Plan achieves this goal by creating appropriate spaces for festivals, ceremonies, parades, First Amendment gatherings, and concerts. Figure #20, Special Events Diagram, illustrates potential locations for these events. Power distribution, restroom facilities, drinking fountains, security lighting and other features which support special events are identified in these guidelines, however, specific quantities, locations, and specifications will be determined in the design development phase of this project.

B. General Requirements and Provisions:

1. Electrical power will be provided to all locations where special events may take place. Separate electrical meters will be provided for billing purposes. Remote cut off locations will enable NPS staff to turn off a specific location without affecting service to other parts of the Mall. Electrical provision will include, but not be limited to:
 - 300 amp 3 phase minimum near Fifth and Chestnut Streets
 - electrical receptacles near potential stage areas and along the Arborway
 - a minimum of one outlet near the First Amendment area
2. Alleyways will be used for loading/unloading for events to the greatest extent possible.
3. All paved areas throughout the Mall will be designed to support intermittent vehicular traffic.

4. One or more kiosks (probably within the Gateway Visitor Center) will provide listings of Park events.
5. Potable water for cleaning will be provided in a variety of locations throughout the Mall. Provision will be made in all three blocks of the Mall for temporary drinking fountains to be installed for large special events.
6. Temporary stages may be erected in the locations indicated on the Special Events Diagram, Figure #14.
7. Tents may be erected within the lawn areas of the Mall.
8. All special events signs must conform to the signage standards set for the Mall. Signs shall not damage the Park or any of its elements.
9. While theatrical lighting will not be provided within the Mall, lighting on Block Two will be available at two levels: normal pedestrian lighting and brighter lighting for setting up and breaking down of evening events.
10. The Gateway Visitor Center and the National Constitution Center will each have one set of restrooms which can be accessed from the exterior of the building for use during special outdoor events when the buildings are closed. There will be adequately sized areas for first aid, lost and found, staff breaks, command center, etc. also accessible from outdoors.
11. With the potential for food preparation at special events, adequate areas will be provided for food preparation, graywater disposal, fresh water access and trash pickup.

C. Types of Events:

1. Festivals, Concerts and Rallies:

- Community festivals or events ranging in size from 300-500 up to 5,000 or more people can be accommodated on the lawn of Block Two of the Mall.
- Booths for up to forty vendors can be set up along the Arborway in Block Two.
- For most events, participating groups will provide their own staging, food booths, tents, and sound equipment. With guidance from the National Park Service, one or more stages may be set up in designated locations.
- Electrical power, with a separate meter, will be available for sound stage areas. It will have a remote cut-off so that power can be interrupted if necessary.
- Lighting will be available for the set-up and break-down of evening events.
- Ticketed or non-ticketed concerts for a maximum of 3000 people can be accommodated in the amphitheater at the north end of Block Three.
- Non-ticketed concerts and rallies which attract a maximum of 2500 to 3000 people may take place on the lawn of Block Two where one or more stages can be erected.
- Other small concerts attracting less than 200 people (such as choir concerts, Symphony Club concerts, school concerts, etc.) may take place in the small amphitheater on Block Two or on Block Three.

2. Ceremonies:

- Most ceremonies, which involve less than fifty people and last thirty minutes or less, may be held outdoors on the lawn of Block One in areas to be specified by the National Park Service; or under the Queuing Arcade outside the Bell Pavilion when the Pavilion is closed to the public.
- Small groups participating in special ceremonies may be allowed into the Liberty Bell Pavilion for ten minutes.
- The design of the Liberty Bell Pavilion will allow some heads of state to make a

procession through the Pavilion to the Liberty Bell Chamber, adding to the ceremonial drama of the event.

3. Parades, July Fourth Celebrations, Presidential Visits:
 - Most parades, which require a permit from the City of Philadelphia, will occur on Chestnut Street, proceeding east past Independence Hall before turning north onto Fifth Street where they will disband. Buses for parade participants will wait on Fifth Street or on Chestnut Street east of Fifth Street.
 - A paved area in Block One facing Independence Hall will be able to accommodate a standard reviewing stand of 16' x 24' and/or bleachers, 5' high, 10' deep and 16' wide.
 - A 100' x 40' stage with side stages may be erected on the south side of Chestnut Street in front of Independence Hall for July Fourth ceremonies or other special events.
 - A seating area with a maximum of 2,000 chairs may be installed on the lawn of Block One for special occasions such as the Liberty Medal award ceremony or a presidential visit.
 - Wide brick paving along Chestnut Street and Market Street will be able to support a broadcast platform, scissor lifts and other equipment necessary for media coverage of special events occurring at Independence Hall or the Liberty Bell Pavilion.
 - Temporary parking for television and press crews can be accommodated on the west side of Fifth Street.
 - Paved areas on Blocks One and Two adjacent to Market Street can accommodate reviewing stands and/or bleachers for parades occurring on Market Street.
 - Electrical power, with a separate meter, will be provided for television coverage and public address systems. There will be a remote cut-off so that power may be interrupted if necessary.
4. First Amendment Gatherings:
 - A paved surface within the lawn on Block One with a direct view of Independence Hall, will accommodate First Amendment activities for groups of up to 250 people.
 - Larger First Amendment gatherings can take place on the lawn on Block Two.
 - Electrical power, with a separate meter, will be provided. It will have a remote cut-off so that power may be interrupted if necessary.
5. Private Parties:
 - Interior and exterior spaces for private events may be created at the Gateway Visitor Center and the National Constitution Center.
 - Tents may be erected for NPS authorized private receptions on the lawn of Blocks Two or Three.

MALL SECURITY STANDARDS

A. General Mall Security Philosophy

1. Physical and technical security aspects of the design of the Mall and its buildings are to be considered an inherent element in the development of the Mall. If the selected designer(s) consider the security requirements throughout the entire design, they will have a well-developed design, meeting all functional criteria, in which the security requirements blend with the design. Design and placement of the Mall's security features must recognize their need to be visible to be effective -- especially to those whose actions they are intended to discourage. But it must also recognize that these features must not be so visible, nor their purpose so overt, that for the typical visitor their presence would alter in any way the overall visual character and interpretive meaning of the Mall.
2. Independence Hall and the Liberty Bell are highly visible symbols of the United States Government, and present a potential target for terrorism by its enemies. The types of threats may vary widely and can change in a short period of time. To meet these threats, security measures as described in these guidelines must be implemented.
3. The National Park Service wishes to maintain an image of our country as an open and democratic society that does not go to inordinate means to protect its monuments behind forbidding barriers. The nature of the Mall and its buildings requires access by many people from many nations. Therefore, the inclusion of physical security in the Mall and its buildings must be unobtrusive and compatible with these purposes, while at the same time deterring adverse activity directed at the Mall.
4. Everyday visitor personal safety is also an important criteria for the design of the Mall. These guidelines shall also address strategies which should be implemented to make the Mall visitor feel safe from accident or crime while they are enjoying the benefits of the Mall.

B. Liberty Bell Complex

1. While it is not the intent of the NPS to produce a fortress-like building and site at the expense of architectural excellence, there is a deterrent value to some visibility of security measures. The designer(s) must weigh the degree of visibility in determining how to best implement the required security criteria.
2. The architect for the Liberty Bell Complex is expected to include in the design team a qualified blast specialist who is familiar with rigorous dynamic structural analysis of buildings (and components) subjected to blast loading.
3. The Master Plan calls for a coordinated approach integrating landscape and building design to maximize the protection of the Liberty Bell.

- C. Sightlines should allow for easy observation within and from as much of the surrounding park as possible. Places that are semi-enclosed and hidden from view should be avoided.
- D. The Mall should be well illuminated at night with the pathways receiving the most light. Light levels on pathways should be a minimum of two foot candles.
- E. Unauthorized vehicles should be prevented from getting close to the Liberty Bell Complex and other Mall elements. The use of appropriately and compatibly designed elements that function as clear visible deterrents to vehicular access into the Mall must be considered in terms of their impact on the visual qualities of the site. A type of barrier should be selected which minimizes visual intrusion from within and around the Mall.
- F. Mall amenities such as light fixtures, benches, drinking fountains, and interpretive features should be vandal-resistant.
- G. A design of all seating areas should incorporate children's safety factors. To the extent possible, seating areas, low walls, and amphitheaters should be designed in such a way as to discourage illegal camping and sleeping.
- H. Benches, railings and other architectural features should be designed to prevent use by skateboarders.

Chapter Ten

OPERATIONS AND MAINTENANCE

- A. General: All services to the buildings and the Mall shall be via the alleyways (some services may be able to use the parking garage below the buildings on Block Two). Building trash areas and loading docks shall be located within buildings adjacent to the alleyways for ease of access by service vehicles. There shall be no additional curb cuts allowed other than for the alleyways and the ramps for the parking garage.

The possible use of the garage for service access for the buildings or landscape on Block 2 has not yet been addressed, and requires further discussion between NPS and the PPA.

It is the expectation of the PPA that all construction activity on and near the garage structure must be performed without adversely affecting the garage structure.

Refer to Chapter 4 for requirements related to sustainable operations and maintenance guidelines.

- B. Trash Storage and Collection: All refuse shall be stored within buildings and easily accessible by maintenance personnel.
- C. Loading Docks/Service Courts: The loading dock for the National Constitutional Center and service areas for the other buildings shall be located within the buildings, off of and accessed through the alleyways. Such service facilities shall be screened from public view and should be designed to be acoustically isolated from public areas.
- D. Maintenance Standards
1. The NPS maintenance standards must be incorporated into the design, construction and operation of any new facility on the Mall.
 2. The purpose of the maintenance standards is to promote a uniform, neat and clean appearance through the Mall and to maintain the quality of cleanliness and good order already established by the National Park Service. During the course of construction on the Mall, the Construction Guidelines are to be strictly adhered to.
 3. Maintenance responsibilities include, but are not limited to: lawn mowing and landscape maintenance; replacement of dead plant material; clean-up of trash and litter; cleaning and repair of all paved surfaces; snow removal; repair, repainting, and routine maintenance of all buildings and signs; and repair/replacement of light fixtures and light bulbs. The details of any maintenance responsibilities that might be undertaken on the Mall by stakeholders other than the National Park Service would be defined in detail in agreements between the Service and those stakeholders. With regard to Block 2, it is assumed that the Philadelphia Parking

Authority is not responsible for maintenance of any and all Mall components over or adjacent to garage.

4. Drainageways shall be kept clean and free of obstructions; appropriate action shall be taken to prevent or repair erosion.
 5. Maintenance equipment is to be stored so that it is not visible from roadways, pedestrian pathways, open spaces, or adjacent properties.
- E. Operation and Maintenance Documentation: Detailed operations and maintenance documentation must be provided to NPS for all systems and equipment prior to the completion of any construction project.

Chapter Eleven

ENGINEERING STANDARDS

Engineering Standards

A. General

Refer to Chapter 4 for requirements related to sustainable operations and maintenance guidelines.

B. Structural Systems

The following live loads are to be used in the design of the structures:

| | |
|------------------------------|---------|
| Flat Roof (ground snow) | 30 psf |
| Offices | 100 psf |
| Retail | 100 psf |
| Meeting Rooms | 100 psf |
| Theaters | 100 psf |
| Corridors at ground floor | 100 psf |
| Corridors above ground floor | 100 psf |
| Exhibition Spaces | 250 psf |
| Mechanical Rooms | 125 psf |
| Storage (light) | 150 psf |

The minimum floor live load of 100 psf is to be used to accommodate future space planning revisions during the life of the structure.

The following minimum design properties are to be used in the design of the structures:

Concrete Masonry $f'_m = 1,350$ psi
Cast-In-Place Concrete $f'_c = 4,000$ psi
Lightweight Fill (115 pcf) $f'_c = 3,000$ psi
Reinforcing Steel $f_y = 60$ ksi
Structural Steel Composite Beams $F_y = 50$ ksi
Structural Steel Non-composite $F_y = 36$ ksi

The structural support capabilities of the existing PECO substation and the parking garage roof and columns need to be determined prior to the initiation of design work of the Gateway Visitor Center, the Independence Park Institute, the Outdoor Café, and the special events lawn areas.

The integration of the Gateway Visitors Center with the existing below grade garage will require that any excavation adjacent to the garage must incorporate lateral bracing for the garage during construction. The Philadelphia Parking Authority shall be

consulted on and approve any and all matters involving or affecting the garage during the design development and subsequent phases of the project.

Historical records for the third block reveal that when the original buildings were demolished, the below grade walls and foundations were left in place. Any rubble that fell into the basements remains. It is recommended that future subsurface investigations include test pits to ascertain the extent of these foundations, which will need to be coordinated with archeological monitoring.

C. Mall Utilities

Utilities:

1. General: All utilities (including but not limited to electrical, telephone, and television) shall be located underground. Utility locations shall be planned for and designed and their appearance addressed and modified or screened to make them blend more easily with the Mall landscape. Even as simple a thing as ensuring that manholes and covers do not fall half-in, half-out, of a paving area, eliminates a jarring combination of materials and a potential maintenance problem. Utility plans shall include layouts and identification of surface appurtenances. All utilities shall meet the space requirements set by code. Where allowed by code, appurtenances are to be incorporated into building services areas and into exterior walls; where not allowed by code, bury first, screen second. Some appurtenances, like fire hydrants, cannot and should not be hidden away; however their locations can be made to fit into the architectural and landscape framework that is the over-riding aesthetic objective.
2. Aerial utility wires for any purpose shall not be permitted.
3. Transformers, Chillers, Emergency Generators, Etc:
 - a. Location and Screening: All transformers, chillers, emergency generators, etc. shall be located within buildings. If these items are required to be outside of the building envelope they shall be visually screened with building walls. It is preferred that the enclosures for these items be integrated into the architecture of the building and acoustically isolated from all public paths and spaces. No transformers, chillers, emergency generators, etc. shall be located on the ground within the Mall, or in visible (including from above) locations on the roofs.
 - b. The Liberty Bell Pavilion and the restrooms on Block One shall be tied into the chilled water loop supplied from the central plant located on Dock Street. Follow NPS document, *Guidelines for Connecting To The Central Chilled Water Plant*, September 23, 1997.
 - c. There shall be a separate electrical service for each block which shall be used for special events. This shall allow the National Park Service to charge the special event organization for their own power consumption as appropriate.

D. Building Ventilation

An outside air economizer, utilizing 100 percent outside air for cooling when the outdoor air temperature falls below a preset value, is to be provided on all air handling units.

If more than 25 percent outside air is required on a given air handling unit, a pre-heat coil is to be used to temper the mixed air to 50-55 degrees.

All subsurface facilities that presently contain ventilation systems must be maintained in the future. If a new facility encapsulates an existing facility, this ventilation system is to be integrated into the new structure.

Buildings which will house archival collections must conform to the ventilation standards in the NPS *Museum Handbook* for the interior environment.

Ventilation systems shall meet requirements of the latest version of "ASHRAE Standard 62, *Ventilation for Acceptable Indoor Air Quality*".

E. Chilled Water System

The refrigeration system shall use a refrigerant that is approved by EPA and one that will not be phased out before the life of the proposed chiller. The chiller and associated equipment shall be chosen on the basis of the lowest life cycle cost of several alternatives and shall include first costs, operational costs, maintenance costs and replacement costs.

F. Heating System

The heating system shall use steam, natural gas, or other means that has been chosen on the basis of the lowest life cycle costs. Life cycle costs shall include first costs, operational costs, maintenance costs and replacement costs.

Buildings which will house archival collections must conform to the heating standards in the NPS *Museum Handbook* for the interior environment.

G. Controls

Controls for main air handling units, and of central heating and cooling equipment shall be DDC. The DDC controls should be integrated in a building energy monitoring and control system. Controls for other equipment, e.g., VAV boxes, do not need to be DDC. The controls for the Liberty Bell Pavilion shall be connected to the parkwide fiber optic data delivery system.

H. Sprinkler System

Sprinkler systems will be designed in accordance with NFPA #13 and 909 and the current edition of BOCA Building Code as enforced by the City of Philadelphia.

Fire Pumps, if required, are to be installed in accordance with NFPA #20, "Standard for the Installation of Centrifugal Fire Pumps".

I. Domestic Water System

The domestic water system will be designed in accordance with the current edition of the Philadelphia Plumbing Code. Domestic hot and cold water pipe material is to be type "L" copper assembled with wrought copper solder joint fittings. Piping is to be insulated with 1/2" nonfiberglass insulation with a service jacket. Insulation on cold water piping is to have a vapor barrier. Domestic water piping below grade shall be either ductile iron, or type 'K' copper.

Flow control faucets are to be used on lavatory fixtures. Each public bathroom is to contain a hose bibb. Trash rooms are to be provided with hose bibbs for hot and cold water.

Isolation valves are to be provided on each domestic water riser to provide isolation for maintenance.

All buildings are to be equipped with exterior, automatic, freeze-proof, key operated wall hydrants no more than fifty feet apart without having hoses cross entrances to buildings.

Recycled rainwater may be used for non-potable needs.

J. Plumbing Fixtures

The plumbing will be designed in accordance with the current edition of the Philadelphia Plumbing Code. Toilets are to be wall mounted in all areas except where the potential of vandalism exists, in which case floor mounted fixtures are to be used. All toilets are to be provided with automatic activation devices. Handicapped accessible toilets, lavatories, and drinking fountains are to be provided in accordance with ADA standards.

Water Closets: Flush valve water closets shall be designed for a maximum water consumption of 1.6 gallons per flush.

Urinals: All urinals shall be designed for a maximum water consumption of 1 gallon per flush and shall use a 1 gallon per flush valve.

Lavatories: All lavatory facilities shall be equipped with self-closing faucets which remain open not more than 10 seconds.

K. Sanitary Drainage and Vent System

The sanitary drainage and vent system will be designed in accordance with the current edition of the Philadelphia Plumbing Code. Sanitary drainage and vent system is to consist of a system of branches and mains, flowing by gravity to a point five feet outside of the building, serving all plumbing fixtures, floor drains, and equipment requiring drainage.

Floor drains are to be provided in all bathrooms and trash rooms.

Sanitary drainage pipe material below grade is to be cast iron bell and spigot with gasketed joints.

Pipe material above ground is to be no-hub cast iron pipe assembled with fittings to match and no-hub couplings.

L. Storm Drainage System

The storm drainage system will be designed in accordance with the current edition of the Philadelphia Plumbing Code. Storm drainage is to consist of a system of interior or exterior rain leaders and mains flowing by gravity to the closest City storm sewer main. Storm drainage for pitched roofs is to be handled by gutters and downspouts. In grade clean-outs shall be provided at each downspout.

Storm drainage pipe material below grade is to be cast iron bell and spigot with gasket joints.

Pipe material above ground is to be no-hub cast iron pipe assembled with fittings to match and no-hub couplings.

M. Electrical Service

Each building is to be provided with underground primary power by Philadelphia Electric Company to a pad mounted transformer. Transformers shall be located within buildings.

N. Power Distribution

A dedicated main electrical equipment room is to be provided for each building.

Service entrance equipment is to include a multi-function solid state meter. In addition, provisions are to be included for monitoring instantaneous electrical demand KW and energy KWH.

Local 120/208 volt, three phase utilization systems are to be located strategically throughout each facility.

Electrical closets are to be located strategically throughout each facility. Closets are to stack through the building. Closets are to be walk-in type.

Feeders and branch circuit wiring are to be selected to limit voltage drop from the service to the first outlet on each branch circuit to a maximum of 5 percent with a maximum allowance of 2 percent in the feeders and 3 percent in the branch circuit.

The design of the electrical distribution and branch circuit system in each facility is to take into account the possible heavy use of electronic equipment utilizing switching mode power supplies with line currents having high harmonic content.

All branch circuit panelboards are to include a minimum of 20 percent spare load capacity and 20 percent spare breaker space.

O. Emergency Power

An alternate source of electrical power is to be provided to serve those loads that are required to remain operational during the potential loss of normal utility power.

The Liberty Bell Pavilion, Gateway Visitor Center, Independence Park Institute, and the National Constitution Center will each be required to have an emergency generator.

The emergency generator is to be sized for the maximum continuous demand load to be served plus 50 percent spare capacity.

The emergency power source is to be a natural gas synchronous AC generator.

Start/stop control of the emergency power system is to be through an automatic transfer switch (ATS).

P. Grounding

Grounding for all electrical systems is to be provided in accordance with the requirements of the NEC.

Q. Lighting

The lighting system design should be based on minimum illumination levels recommended by the Illuminating Engineering Society (IES) standards.

Design for lighting in classrooms, theaters, exhibit spaces and offices is to provide a minimum Visual Comfort Probability (VCP) of 70.

In general, lighting fixtures for interior lighting are to be high efficiency fluorescent with standard T-8 lamps and energy saving electronic ballasts wherever possible.

The use of incandescent and halogen lighting is to be limited to special requirements and conditions. The light which spills out into the Mall at night should be a "warm" light, the primary light source to be used in the main public spaces should be incandescent and halogen.

Emergency lighting and exit signs are to be provided in accordance with applicable codes to light all required means of egress. LED type exit signs shall be used, inefficient or short life sources shall be avoided.

Occupancy sensors are to be provided for automatic control of lighting in single offices, classrooms, meeting rooms, and non-public toilet rooms.

Daylighting and task lighting shall be used wherever possible.

Buildings which will house archival collections must conform to the lighting standards in the NPS *Museum Handbook* for the interior environment.

Exterior lighting branch circuits are to be provided with lighting contractors with Hands-Off-Auto selector switches. Auto position is to be controlled by a photocell.

R. Communications

A complete system of equipment spaces, interconnecting raceways, wall outlets, and empty raceways from the outlets to the equipment spaces are to be provided as part of construction of each building. The installation of cables and equipment shall be provided by each stakeholder. Electronic systems to be accommodated are to include voice, data and video.

A Main Distribution Frame (MDF) room is to be located inside a building adjacent to an exterior wall at the lowest floor of each building with conduit to the Mall exterior underground data distribution system. A dedicated 120/208 volt, three phase branch circuit panelboard with surge suppression is to be provided in the equipment room for equipment power circuits. The selection of the panelboard, branch circuits, feeder and stepdown transformer for this space is to take into account the potential for a high level of current waveform distortion produced by the equipment to be located in this space. This panelboard is to be surface mounted to allow flexible future installation of branch circuits. The dry type transformer serving this space is to have a grounded electrostatic shield between windings. Fiber optic cable is to be used for the inter-connection of MDFs between buildings and for a connection to the existing Independence Park.

Intermediate Distribution Frame (IDF) closets are to be provided on each floor of each building to serve as distribution points for the cable system. Closets are to be strategically located so that the cable length from the closet to the furthest outlet served by the closet will be a maximum of three hundred feet. Closets are to stack through the buildings. Closets are to be walk-in type with minimum inside dimensions of five feet by seven feet. Plywood backboards, eight feet high, are to be provided on the walls for mounting of cable termination equipment. Empty conduit raceways are to be provided from each closet on the lowest floor to the Main Distribution Frame. In addition, empty conduit raceways are to be provided to interconnect the closets at every other floor and at the top floor. A minimum of two 120 volt receptacles are to be provided in each closet with each outlet served by a separate 20 ampere, 120 volt branch circuit. These receptacles are to have integral surge protection.

Wall outlets are to be provided for each workstation in each facility. Outlets are to consist of a four inch square recessed wall box with a single gang blank wall plate. Empty conduits are to be provided from outlets to the distribution closets. A maximum of one outlet is to be served by a single raceway homerun to the distribution closets. Raceway homeruns should not contain more than the equivalent of three 90 degree bends between cable pull points. The distribution closet end of each homerun is to be labeled to indicate the space served.

Each empty raceway is to be provided with a pull wire. All details of all provisions for electronic systems are to be coordinated with the *National Park Service Office of Information Technology*. An outlet for a wall mounted telephone instrument is to be provided in each equipment room or equipment closet.

The security communications provisions outlined in this section do not apply in their entirety to the garage, as it is not anticipated that the National Park Service will directly and regularly monitor security conditions in that facility. Discussions as to the nature and degree of security communications between the PPA and NPS will determine the extent and nature of any technical requirements.

S. Building Security

An access control system is to be provided for limited access to each facility during hours that the facility is to be secured. In addition to controlling access to the facility from outside, the system is to provide controlled access to selected spaces within the facility. Building security will also consist of: interior and exterior intrusion monitoring, duress alarms, CCTV, emergency (red) phones and 24 hr. artifact/object protection. Any newly installed system must be compatible with the current INDE alarm monitoring system. All key operated locks (except most cabinets) must be compatible with the Park's current Best lock/key coring plan. Any exceptions must be approved by the Park Superintendent.

T. Fire Alarm System

A complete fire alarm system is to be provided utilizing addressable field devices. In addition to code required smoke detection, smoke detection is to be provided in the main electronics equipment room, each electronics distribution closet, main electrical equipment room, and each electrical closet. Smoke detectors are to be photoelectric type unless otherwise requested by the stakeholder. The fire detection system must be Simplex or compatible with the current INDE Simplex alarm monitoring system. This

includes standardization in detector heads, pull stations, etc. Any exceptions must be approved by the Park Superintendent.

U. Public Address System

A public address system is to provide voice paging and public address announcements to the covered areas of each facility by zone or by "all call."

V. Lightning Protection

The lightning protection system is to consist of air terminals at the roof, bonding of conductive materials at the roof, interconnecting cables, down leads, ground rods at grade around the perimeter of the facility, and bonding of the system to other grounding systems at grade.

The lightning protection system is to be designed to conform to the requirements of NFPA.

Applicable Codes

A. All building design and construction shall conform to the latest applicable editions of building codes as enforced by the City of Philadelphia including but not limited to:

- BOCA National Building Code
- City of Philadelphia amendments to the BOCA National Building Code
- Basic Energy Conservation Code
- NFPA 101 Life Safety Code
- BOCA National Fire Prevention Code
- BOCA National Mechanical Code
- National Electric Code (NEC)
- ASHRAE - American Society of Heating/Refrigeration
- Department of Energy regulations
- PENNDOT
- AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings, 9th Edition
- ACI Building Code Requirements for Reinforced Concrete (318-89)
- Insurance carrier requirements as identified by the National Park Service
- O.S.H.A. Safety and Health Standards - 29 CFR 1910 and 29 CFR 1926
- Americans with Disabilities Act (ADA) of 1990
- Federal Energy Conservation Standards
- Executive Orders re: sustainable design

B. Metrication: Federal Government regulations typically would require the projects built on the Mall to be documented using metric weights and measures. However, because of the required coordination between new and existing site features and surveys, English weights and measures shall be used.

CONSTRUCTION STANDARDS

- A. General: The purpose of the Construction Standards is to minimize the adverse impact of construction related activities, and to ensure full conformance with erosion and sedimentation control requirements in order to minimize soil erosion by water and wind. The Independence National Historical Park will remain open during all construction projects and thus measures must be taken to protect staff and visitors from conflicts with construction.
- B. All construction storage and equipment yards shall be fenced in an approved manner and shall be located to minimize impact on adjacent portions of the Mall and on city streets. Construction materials are to be stored on site in an orderly manner that will not interfere with other Mall or city activities. No construction equipment shall be parked in the street. All vehicles bearing mud or loose debris shall be cleaned before leaving the site and entering the City streets. Mud, dirt, or other surface debris deposited on the public or common roadway at the access point shall be washed away in order to avoid compaction and damage to the road and minimize impact on designated areas. Construction sites shall be maintained in a neat and orderly manner. All trash shall be kept in enclosed containers and emptied frequently. All recyclable materials must be separated out of the trash and recycled appropriately.
- C. Temporary structures, portable offices, and other related facilities will be maintained in good repair and arranged in a compact manner on the construction site. These facilities will be situated so as not to be obtrusive or unsightly when seen from the Mall, city street, or adjacent properties. The location and physical character of temporary structures such as construction trailers or portable buildings are subject to review by the design team and NPS. These structures as well as parking spaces for workers must be located within the construction site and not on adjacent streets and easements. All temporary structures and portable facilities will be removed before the issuance of the Certificate of Occupancy unless construction on another phase on the same project is to commence.
- D. Protection of vegetation during construction is required. These protection measures must be described in detail in the construction documents and specifications. Protection of vegetation includes existing vegetation to remain, newly planted vegetation and unplanted vegetation that is stored on-site. Protection measures include fencing, trunk planking, protection of roots and structure of trees to remain, pruning and tree removal.
- E. It is the expectation of the Philadelphia Parking Authority that all construction activity on and near the garage structure must be performed without adversely affecting the garage structure.
- F. Reference Standards:
- FAR Construction Standards
 - NPS 10 Guidelines for the Preparation of Design and Construction Drawings
 - NPS 29 Guidelines for Graphic Standards

Appendices

APPENDIX A: CHARTER AND SCHOOL BUS LOADING/UNLOADING OPTIONS

The information contained in this Appendix Section is intended to provide an overview of the recommendations made by the Master Plan team regarding the handling of the buses that drop off and pick up visitors to the Mall. Despite the range of options presented, some of which continue to be explored, the stakeholders and design teams designing and building new structures within the Mall should assume that the status quo condition for the buses will remain, with the minor modifications described in Option 1 below.

At the present time, charter and school buses load and unload passengers and park in many locations in and around the Mall. The City of Philadelphia is planning to create an offsite parking lot for buses, but it will be necessary to have a location on the Mall where up to fifteen buses can load or unload at a time. The Master Plan Team looked at seven options for the loading zone, each of which had pros and cons.

Option 1: East Side of Fifth Street, Block Two

This is the National Park Service's preferred interim solution, prior to the construction of the National Constitution Center on Block Three (see Option 7 below). This is the closest of the options presented herein to the status quo, although it differs from it in its assumption that there will be development by the City of an off-site location for bus parking, so that Fifth Street would only be used for dropoff and loading. There is clearly an associated assumption: that when such an offsite bus parking location is available, the circulation of buses to and from Fifth Street can and will be better managed than present conditions allow.

Maximum number of buses: 9

Pros:

- No cost (is the existing condition)
- Bus companies are familiar with the location
- Buses would load/unload in Block Two (preferred location in GMP)

Cons:

- Passengers would disembark on wrong side of the street
- Pedestrian traffic would increase at busy Fifth and Market intersection
- A "wall of buses" would line the Park
- The Visitor Center is not within sight; visitors could bypass it
- Requires better management so that buses load and unload only; Buses must not be allowed to park at this location

Option 2: West side of Sixth Street, Block Two

Maximum number of buses: 13

Pros:

- Visitor Center is close and visible
- Buses would load/unload in Block Two (preferred location in GMP)
- Minimal cost

Cons:

- Federal law prohibits parking in this location due to security regulations for Federal Courthouse
- Passengers would disembark on wrong side of the street
- A signalized mid-block pedestrian crossing would be required
- Buses would have to travel through two busy Market Street intersections en route to remote parking lot
- A "wall of buses" would line one side of the Park

Option 3: East Side of Sixth Street, One-way Traffic with Layby

Maximum number of buses: 6

Pros:

- Buses would unload close to Visitor Center
- Buses would load/unload in Block Two (preferred location in GMP)
- Costs would be low

Cons:

- Passengers would disembark on an island between buses and busy traffic and would have to cross between buses to reach Visitor Center
- A "wall of buses" would line one side of the Park
- The sidewalk in front of Visitor Center would be reduced
- Motorists entering parking garage could accidentally enter bus layby

Option 4: West Side of Fifth Street and East Side of Sixth Street, Two-way Traffic

Maximum number of buses: 16

Pros:

- Passengers would disembark on the correct side of the street
- Half of the buses would be close to the Visitor Center entrance
- Buses would load/unload in Block Two (preferred location in GMP)
- Low cost
- Passengers would disembark on the correct side of the street

Cons:

- Buses would have to travel through two busy Market Street intersections
- The ramps into the parking garage from Fifth Street would have to be replaced by extended helix entrance
- Two-way traffic would have to be introduced on Fifth, Sixth and Arch Streets which could cause confusion to motorists
- The entrance to the parking garage would be obscured by parked buses
- A "wall of buses" would line two sides of the Park

Option 5: North and South Sides of Arch Street

Rejected by Master Plan Team since significant views to Independence Hall would be blocked by a "wall of buses"

Maximum number of buses: 10

Option 6: Block Three at Grade

This is considered an interim solution until the National Constitution Center is built.

Maximum number of buses: 14

Pros:

- Buses would load and unload passengers off the city streets
- Passengers would disembark into a safe park setting
- Buses would avoid Market Street and have minimal impact on city streets
- Visitors would be unlikely to miss the Visitor Center

Cons:

- Would have a major impact on Block Three
- Buses would load/unload in Block Three rather than on the preferred Block Two
- Passengers would have to cross Arch Street to reach Visitor Center
- Cost would be more than on-street solutions

Option 7: Underground Bus Terminal in Block Three

Buses would enter the block from Race Street, proceed underground to the south end of the block where passengers would disembark. Passengers could exit the terminal by three routes: by a tunnel under Arch Street directly into Block Two; by an exit into the Park on Block Three; or by an exit into the National Constitution Center. Buses would exit the terminal onto Fifth Street and proceed to the remote parking lot.

This option is the long term solution preferred by the National Park Service and would be built in conjunction with the construction of the National Constitution Center on Block Three. A traffic engineering study exploring the feasibility of this solution, and the incorporation into this solution of additional underground parking, was about to be undertaken as of the date of these guidelines.

Maximum number of buses: 16

Pros:

- Buses would have minimal impact on city streets
- Passengers would disembark in a safe setting
- Views through the Park would be unobstructed
- Passengers would experience the Park before entering the Visitor Center
- The Park will have no "wall of buses"

Cons:

- Cost
- Buses would load/unload in Block Three rather than on the preferred Block Two

APPENDIX B CONTEXTUAL INFORMATION

The information contained in this Appendix Section is intended to provide an overview of the recommendations made by the Master Plan team regarding physical alterations in locations around the perimeter of the Mall that are outside of the Park Service's jurisdiction. Determination of whether and to what extent to implement such recommendations rests primarily with the City of Philadelphia. The recommendations therefore will not be addressed directly by any of the stakeholders and design teams designing and building new structures within the Mall.

As noted elsewhere in these guidelines, those stakeholders and their design teams should assume that the status quo conditions and configuration of the streetscape around the Mall perimeter will remain, except for the specific conditions associated with the rehabilitation of the parking garage in Block 2 (e.g., the removal of the pair of on-street ramps on Sixth Street; the extension to sidewalk level of the garage's elevator at Fifth Street).

In general, the Master Plan recommends that the city streets that surround and trisect the Mall should be narrowed wherever possible to allow sidewalks to be widened and to create a more pedestrian friendly environment. This general recommendation is broader than the single more specific recommendation in the General Management Plan, which called for Chestnut Street to be closed to through traffic. However, the City of Philadelphia is not planning to close this street. Instead, the Master Plan recommends that Chestnut Street as well as Fifth and Sixth Streets be narrowed, as summarized below, and that automobile parking be reduced and ultimately eliminated on all streets adjacent to the Mall. In addition, the City is considering possible traffic calming and other related amenities. The Master Plan team sees these modifications as important to the overall success of the plan for the Mall.

Where crosswalks are indicated below, it is important to note that their location and size, as well as all other aspects of their design, would be coordinated through the City. Building access and pedestrian circulation within the Mall should be planned so as to encourage corner crosswalk use wherever possible.

Proposed streetscape recommendations are as follows;

1. Sidewalks and Curbs - new widths after adjustments:
 - a. Chestnut Street: 20' - 30' as per plan
 - b. Market Street: 20' - 30' as per plan
 - c. Arch and Race Streets: 20' - 30' as per plan
 - d. Fifth and Sixth Streets: 10' - 35' as per plan
 - e. Crosswalks: Make as wide as permitted by the City of Philadelphia standards
2. Paving Materials:
 - a. Chestnut Street:
 1. Sidewalk: Brick and stone pavers with 8" x 4" granite cobblestone over continuous tree-planting trenches
 2. Cartway: Granite cobblestone (8" x 4", typ.)
 3. Crosswalk: Granite pavers
 4. Curbs: Granite (reuse existing curbs where possible)
 - b. Market Street:
 1. Sidewalk: Brick pavers with 8" x 4" granite cobblestones over continuous tree-planting trenches
 2. Crosswalks: Existing brick pavers with concrete edging

3. Curbs: Granite (reuse existing curbs where possible)
 - c. Arch and Race Streets:
 1. Sidewalk: Brick pavers with granite cobblestones over continuous tree-planting trenches
 2. Crosswalks: Brick pavers with concrete edging
 3. Curbs: Granite (reuse existing curbs where possible)
 - d. Fifth and Sixth Streets:
 1. Sidewalk: Brick pavers with granite cobblestones over continuous tree-planting trenches; limit of this treatment will be at the edge of garage ramps and will be delineated specifically in the design phases of the pertinent projects.
 2. Crosswalks: Brick pavers with concrete edging
 3. Curbs: Granite (reuse existing curbs where possible)
3. Lighting:
- Lighting standards and guidelines for the Mall will be further developed in the Design Development phase of the project. The following section distinguishes between roadway lighting, which is to be a higher intensity lighting for vehicular traffic, and sidewalk lighting, which is to be lower intensity lighting that illuminates the sidewalk and furnishings at a pedestrian scale.
- a. Coordinate and integrate street and sidewalk luminaires (in size, shape, color, material, finish, illumination levels, and lamp) with park building lighting and all other INHP elements.
 - b. Specify luminaires and bulbs that are resistant to vandalism.
 - c. Coordinate lighting along the entire length of a street. Establish a hierarchy of light fixtures throughout the Mall.
 - d. Design sidewalk lighting to meet local and state-wide codes.
 - e. Select luminaires which complement the architectural character of the park. Select fixtures similar in character to those used in surrounding neighborhoods such as Society Hill, Old City and the Historic District. Strict reproduction of those fixtures is not required and indeed may be inappropriate depending on the evolution of the design of the Mall's new structures and their associated lighting.
 - f. Coordinate with city agencies to incorporate new luminaires on both sides of city streets where applicable.
 - g. Consider more than just the issue of light level when addressing perception of safety. Balance brightness with light color, shielding from glare, and fixture placement to provide general, comfortable, and even levels of light.
 - h. Balance light source with life expectancy of lamp type and quality of color rendition. Use *deluxe* (not standard) high pressure sodium, metal halide or incandescent illumination. Avoid regular or standard high pressure sodium, which gives a harsh orange cast.
 - i. Avoid contributing to light pollution. Concentrate light where pedestrians are and where they want to be.
 - j. Encourage PECO to change the sodium vapor lighting on poles which lights Independence Hall to a light color which is more sympathetic and attractive to brick buildings.
4. Street Trees:
- a. Select suitable tree species and varieties:
 1. Select species whose density of crown (transparency vs. opacity), and shape of crown (i.e. round, oval, vase-shaped, conical, columnar, etc.) reflect the

- context of the particular location (i.e., visibility of buildings, walls, signage or screening of views).
2. Provide a diversity of species to minimize the risk of pest infestation and disease associated with monoculture planting.
 3. Provide a plant palette which distinguishes the street grid, i.e. the east - west streets as primary and distinct from the north - south streets.
 4. Select deciduous species to provide winter sun and summer shade.
 5. Select species whose size and shape at maturity are compatible with the space available (for roots and crown), and with the scale of the street (sidewalk width, building walls and, awnings, utilities, etc.).
 6. Use maximum expected trunk diameter or design maturity and soil volume criteria to determine tree pit size.
 7. Obtain the highest quality plant stock available to minimize effects of transplant shock and to improve the survival rate of the trees. Major trees are to be nursery grown, hand dug, and balled and burlapped.
- b. Size of trees at time of planting:
1. Minimum height: 14'.
 2. Minimum spread: 6'.
 3. Minimum caliper: 4 1/2 - 5".
 4. Tree size should be such that they can be limbed up six feet (6'-0") to seven feet (7'-0") above finished grade and still have sufficient canopy to provide a presence on the street. Branch height and configuration shall not conflict with adjacent walls or structures.
- c. Tree spacing:
1. Coordinate street tree locations with existing and proposed site utilities, site amenities, driveways, existing trees to remain, parking meters, bus stops, and corners.
 2. Restrict planting on east - west streets to preserve views of Independence Hall (as per plan).
 3. Strengthen and enhance existing street tree rows by planting new trees at the same or similar spacing intervals, where available space allows (as per plan).
 4. Plant street trees where none exist, evenly spaced in rows to the extent possible (as per plan).
 5. Space street trees equally to the extent feasible when planting in rows.
 6. Plant street trees in straight or evenly staggered lines.
 - Space trees as follows:
 - Large canopy trees: 25'-0" to 35'-0"
 - Medium canopy trees: 20'-0" to 30'-0"
 - Small trees: 15'-0" to 20'-0"
 - Coordinate with city agencies to incorporate new street trees on both sides of city streets and beyond park limits as indicated on plan.
- d. Tree planting pits:
1. Plant trees in continuous linear pits or trenches whenever possible. The width of trench should be two feet (2'-0") wider than rootball. The length of trench should extend a minimum of two feet (2'-0") beyond the edge of the rootballs of the end trees. (See Continuous Tree Planting Trench Detail, Figure #17)
 2. Plant trees in individual pits if continuous pits are not feasible. The minimum size of tree pit should be two feet (2'-0") larger than rootball in one direction; the other dimension should be that required to achieve volume of usable planting soil.

3. Insure the most optimal growing conditions for the trees by providing:
 - a drainage and aeration system with access for maintenance
 - structural planting mix where trees are planted in high pedestrian traffic areas
 - root barriers as appropriate for species and situation
 - soil appropriate for species and situation (specifications to be developed)
 - permeable pedestrian pavements (such as 8" x 4" granite cobblestones, Belgian block, decomposed granite or ground cover) over continuous tree planting trenches and individual tree pits
 - Cover top of individual tree planting pits with one of the permeable pedestrian pavements listed above.
- e. Maintenance and Irrigation:
 1. Provide irrigation for a minimum of three years after planting.
 2. Provide an on-going maintenance program and automatic irrigation system that includes provisions for replacement and meets the required standards of the National Park Service.
 3. Match seasonal water needs of plant material with irrigation management programs which balance volume of water provided with seasonal preliminary rates of evaporation and transpiration for size and type of plant in question.
5. Site Furnishings:

All site furnishings shall be designed or selected to create a unified sense of identity. These include:

 - a. Trash receptacles
 - b. Banners
 - c. Light fixtures
 - d. Bollards
 - e. Fences
 - f. Tree grates
 - g. Fire hydrants

6. Vehicular Circulation issues

- a. Reduce and ultimately remove on-street parking from areas adjacent to the entire Mall.
- b. Designate a new, or better managed, charter bus loading and unloading area which is readily accessible to the Gateway Visitor Center and which reduces the impact of tour buses on the visitor experience.
- c. Prevent charter buses from parking on any of the blocks at the perimeter or traversing the Mall, directing them to a new, city-designated remote parking lot.
- d. Prohibit all idling or parked buses, trolleys and horse carriages from blocking the important vistas and impeding movement through the Mall.
- e. Remove all currently used loading/standing zones adjacent to Independence Hall and the Bell Pavilion.

7. Public Transportation

A. Subway Access. (Northeast Corner Marker Block 1; Southeast Corner Marker, Block 2). New stairways to the SEPTA subway on both sides of Market Street along the west side of Fifth Street will be welcoming for visitors and commuters entering or exiting the subway at the Mall. They will be wide, covered and well lit, using both natural and artificial lighting. They will satisfy all ADA accessibility requirements.

SEPTA is encouraged to design these subway entrances/exits in a way that is welcoming and supportive of the mall design vocabulary.

B. Bus Shelters. Consider adding appropriately located bus shelters on Market and Arch streets.

APPENDIX C: CREDITS

The following individuals and organizations contributed their time, energy, and ideas to the Master Plan for the three blocks north of Independence Hall. Everyone who helped cannot be adequately thanked, however, their contributions have been invaluable to the advancement of this design effort.

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